SONY

3-798-971-11(1)

Mini Hi-Fi Component System

Operating Instructions GB

COMPACT disc DIGITAL AUDIO

R·D·S EON

MHC-EX9AV

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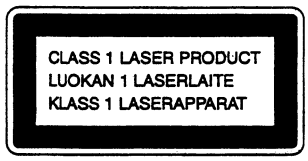
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

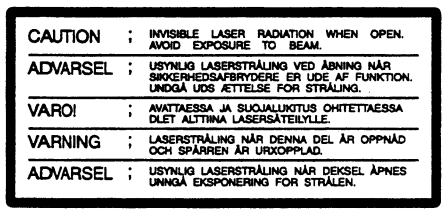
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING ; LASERSTRÅLING NÄR DENNA DEL ÄR OPPNAD OCH SPÄRREN ÄR URXOPPLAD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

GB
2

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

A moulded plug complying with BS 1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS 1362, (i.e. marked with ◈ or ♡ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

IMPORTANT
If the plug supplied is not suitable for the socket outlets in your home, it should be cut off and an appropriate plug fitted in accordance with the following instructions.

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

WARNING
To prevent shock hazard, do not insert the plug cut off from the mains lead into a socket outlet. This plug cannot be used and should be destroyed.

Welcome!

Thank you for purchasing the Sony Mini Hi-Fi Component System. This series is packed with fun features. Here are just a few:
- A preset feature, that lets you store and recall up to 40 (30, for customers in Germany and Italy) of your favourite radio stations
- RDS buttons that let you receive RDS (Radio Data System) services
- An AV centre amplifier that lets you adjust the audio quality to fit four music types
- A timer that lets you set the CD player, tape player or radio to turn on and off whenever you want
- A dual tape deck that lets you record from the radio, CD player or from the other tape deck and relay play from both decks
- An AV remote that lets you control your audio/video system from your seat

The MHC-EX9AV consists of the following:
– CD player: CDP-EX10
– Tuner: ST-EX10
– Stereo cassette deck: TC-EX10
– AV centre amplifier: TA-EX9
– Speaker system: SS-EX90CR

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Chapter 1: Setting Up

Connecting the Stereo

Setting up the Surround Speakers

Inserting the Batteries

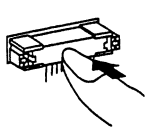
Setting the Clock

Connecting the Stereo

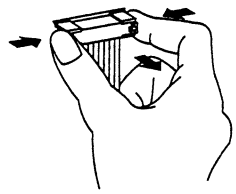
Use the illustrations below to connect your stereo.
If you want to connect any optional components to the stereo, see "Connecting Optional Equipment" in Chapter 7.

STEP 1 Connecting the Flat Cord

Connect the supplied flat cord to the SYSTEM CONTROL connectors with the same colour until it clicks.



To disconnect the flat cord
Pull out the connector of the flat cord while pressing its sides. Do not pull the flat cord itself.



STEP 2 Connecting the Audio Cables

Use the supplied audio cords to connect the AV centre amplifier and other components. Be sure to connect the following:
– the plugs to the jacks of the same colour.
– the jacks with the same Roman numerals.

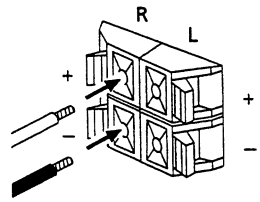
Connect the jacks on the AV centre amplifier below	With the jacks on the other components below
TUNER IN Ⅰ	TUNER OUT Ⅰ on the tuner
CD IN Ⅱ	CD OUT Ⅱ on the CD player
TAPE OUT Ⅲ	TAPE IN Ⅲ on the tape player
TAPE IN Ⅳ	TAPE OUT Ⅳ on the tape player

STEP 3 Connecting the Speakers

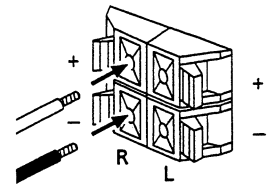
Connect front, rear and centre speakers to the AV centre amplifier.

1 Twist the speaker cable coating and strip it from the end of the cable.

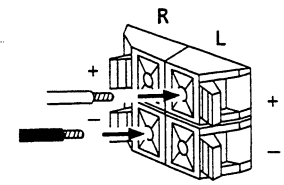
2 Connect the right front speaker to the FRONT SPEAKER R connectors and the left front speaker to the FRONT SPEAKER L connectors.



3 Connect the right rear speaker to the REAR SPEAKER R connectors and the left rear speaker to the REAR SPEAKER L connectors.

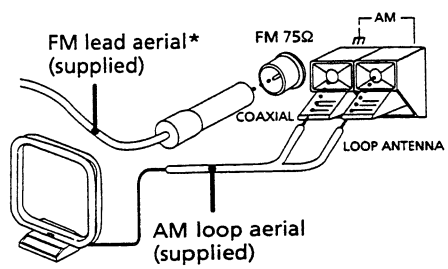


4 Connect the centre speaker to the CENTER SPEAKER connectors.
If you connect the centre speaker with one cable, be sure to connect it to the + terminal of L connector and – terminal of R connector.



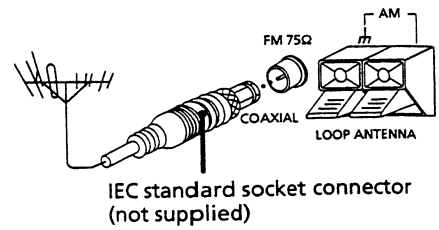
Note
You cannot listen to the sound if you do not make the correct connections as illustrated above.
Make sure to check again after you have made all the above connections.

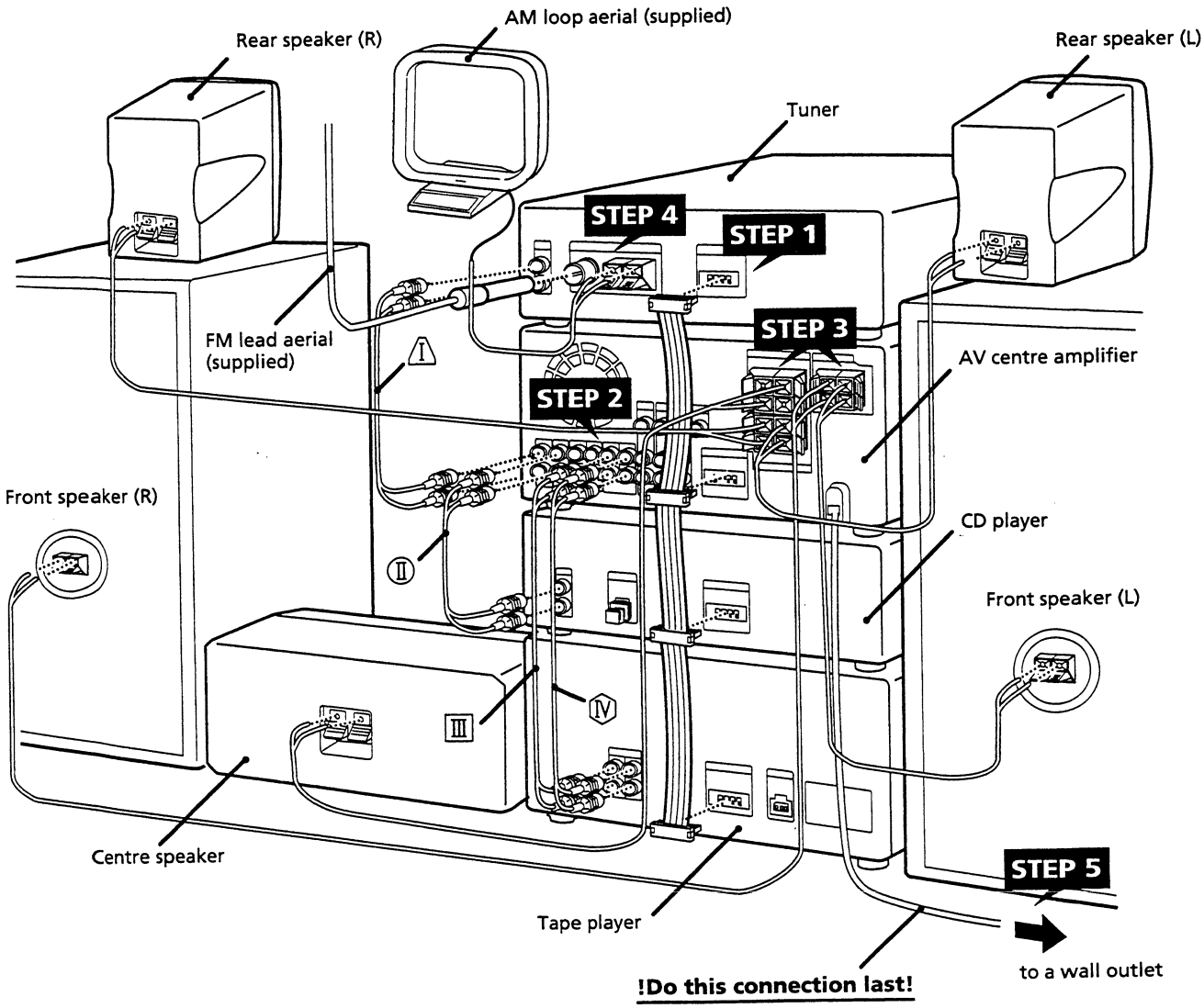
STEP 4 Connecting the Aerials



*Note: Extend it horizontally.

To improve the FM reception
Connect an outdoor FM aerial to the FM 75Ω terminal, using a 75-ohm coaxial cable and IEC standard socket connector.



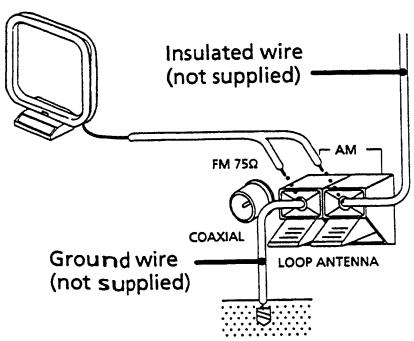


To improve the AM reception

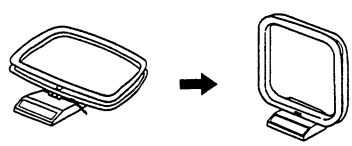
After you connect the AM aerial, connect a 6- to 15- meter (20- to 50- feet) insulated wire to the AM terminal. Connect the ⏚ terminal to earth.

Important

Ground the external aerial against lightning. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

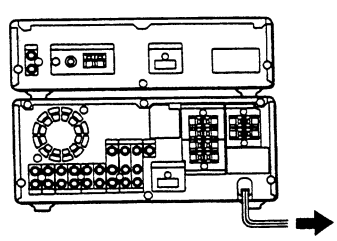


To set up the AM loop aerial



STEP 5 Connecting the Power

Connect the mains lead to a wall outlet after you have made all the above connections.



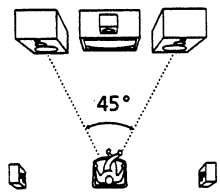
Caution

Before you power on the stereo, turn the VOLUME control counterclockwise to decrease the sound level.

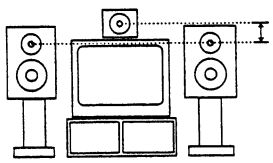
Setting up the Surround Speakers

Proper speaker placement is essential to achieving directional effects and diffuse ambience, especially in the case of the surround speakers. Too much direct sound from the surround speakers can make their presence too obvious while too much diffusion may result in a directionless sound image. If it is not possible to locate the surround speakers in the preferred way, experiment creatively with their placement while keeping in mind the goal of a diffuse and enveloping, but not overly vague, sound field.

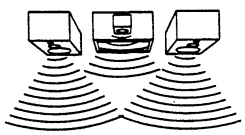
1 You should place the left and right speakers so that they form a 45° angle with your listening/viewing position. Surround speakers should be mounted on the side walls as shown in step 4.



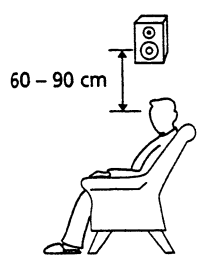
2 The three front speakers should be as close to the same height as possible.



3 The centre speaker should be placed even with or slightly behind the front left and right speakers.



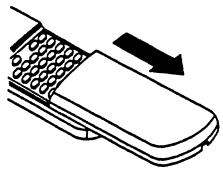
4 If possible, mount the surround speakers on the walls to the sides of your listening/viewing area, 60 to 90 cm above your seated position, firing straight across at each other.



Inserting the Batteries

Install two R6 (size AA) batteries in the supplied remote for remote control.

1 Slide the lid to remove it.



2 Insert two R6 (size AA) batteries. Match the + and – to the diagram in the battery compartment.

3 Slide the lid to replace it.

Battery life

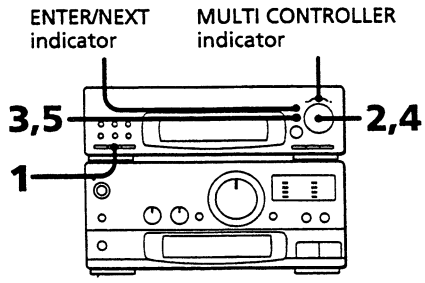
You can expect the remote to operate for about six months (using Sony SUM-3 (NS) batteries) before the batteries run down. When the batteries no longer operate the remote, replace all the batteries with new ones.

To avoid battery leakage

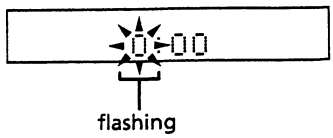
If you are not going to use the remote for a long time, remove the batteries to avoid damage caused by corrosion from battery leakage.

Setting the Clock

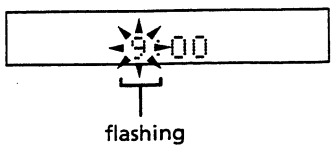
The built-in clock shows the time in the display even if the power is off.
Use the buttons on the unit to do this operation.



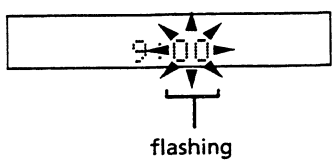
1 Press CLOCK SET.
The MULTI CONTROLLER indicator, ENTER/NEXT indicator and the hour indication begin flashing.



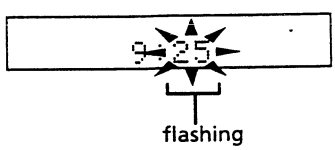
2 Set the current hour by turning MULTI CONTROLLER (+/–) until the correct hour appears.



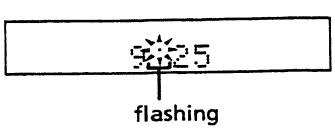
3 Press ENTER/NEXT.
The minutes indication begins flashing.



4 Set the current minute by turning MULTI CONTROLLER (+/–) until the correct minute appears.



5 Press ENTER/NEXT.
The clock starts running and the upper dot flashes.
The upper dot flashes for the first half of a minute (0 to 29 seconds), and the lower dot flashes for the last half of a minute (30 to 59 seconds).
Use the time signal to set the clock accurately.



To correct the clock setting

Repeat steps 1 to 5.

Chapter 2: the CD Player

Playing a CD (normal play)

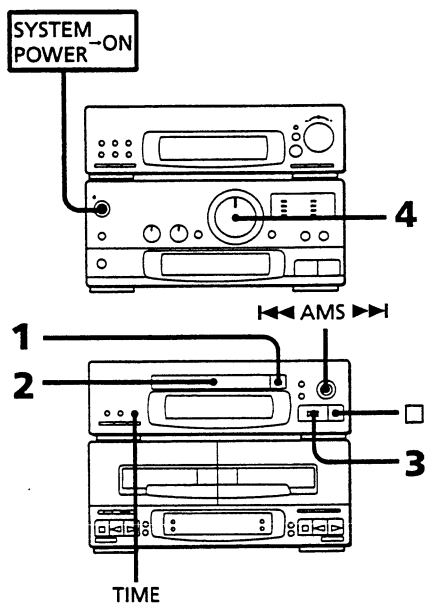
Playing Tracks in Random Order (shuffle play)

Playing Tracks in the Desired Order (programme play)

Playing Tracks Repeatedly (repeat play)

Playing a CD (normal play)

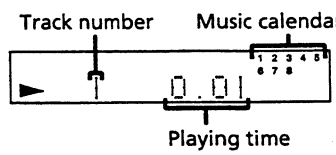
You can play a CD in four modes: normal, shuffle, programme and repeat. The mode decides which tracks (songs) you will listen to, in which order and whether or not they will repeat.
Before you play the CD, decrease the sound level by turning the VOLUME control counterclockwise, to avoid damaging the speakers.
You can also use the remote to do this operation.



1 Press ⏏ OPEN/CLOSE to open the disc tray.

2 Holding the CD by the edge, place the CD on the CD tray with the label side up. (When you play an 8-cm CD, place it without an adaptor on the inner circle of the disc tray.)

3 Press ▷II on the unit (or press ▷ on the remote).
The disc tray closes and play starts.

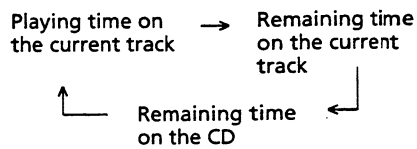


4 Adjust the volume.
Turn VOLUME clockwise to turn up the volume, or counterclockwise to turn down. (Or press VOLUME (+/–) on the remote.)

To	Press*
Stop play	□ (■)
Pause	▷II (II)
Resume play	▷II (▷ or II)
Remove the CD	⏏ OPEN/CLOSE

* The buttons on the remote are indicated in parentheses.

To check the remaining playing time
Press TIME repeatedly.
Each time you press TIME while playing a CD, the display changes as follows:



To check the total playing time and number of tracks
Press TIME in stop mode.
The total playing time and number of tracks appear for a few seconds.

Note
The total playing time and number of tracks also appear in the display when you press ⏏ OPEN/CLOSE to close the disc tray.

One Touch Play feature
Press ▷II on the CD player (or CD/MD ▷ on the remote) when the power is off. When a CD is in the player, you will be able to start listening to the CD without pressing any other buttons. If no CD is inserted, the system will just turn on.

Automatic Source Selection
If you press ▷II (or CD/MD ▷ on the remote) while another source is selected, the CD player is selected and play starts automatically.

The Music Calendar Display
This display lights according to the number of tracks on the CD. As each track is played, the corresponding number disappears. Tracks numbering in excess of 20 are not displayed.

continue to next page →

→ continued

Locating a Specific Track (automatic music sensor: AMS)

You can quickly locate any track while playing or pausing a CD.

To locate	Turn
The next or succeeding tracks	⏮ AMS ⏭ clockwise (or press ⏭ on the remote repeatedly) until you find the track
The current or preceding tracks	⏮ AMS ⏭ counter-clockwise (or press ⏮ on the remote repeatedly) until you find the track

Locating a Particular Point in a Track

You can locate a particular point in a track while playing or pausing a CD. Use the buttons on the unit to operate this feature.

To	Do this
Go forward quickly	Hold down ⏩ and release it at the desired point.
Go backwards quickly	Hold down ⏪ and release it at the desired point.
Search quickly by observing the display during pause	Hold down ⏪ or ⏩ until you find the point. You will not hear the sound during this operation.

To find a track directly

You can find a track you want just by pressing the track number on the remote.

1 Set the CD/MD switch to CD.
2 Press CD/MD ▷.
3 Press ■ to stop play.
4 Press the numeric button for the track you want.

If the track number is 11 or more

Press >10 and the track number.

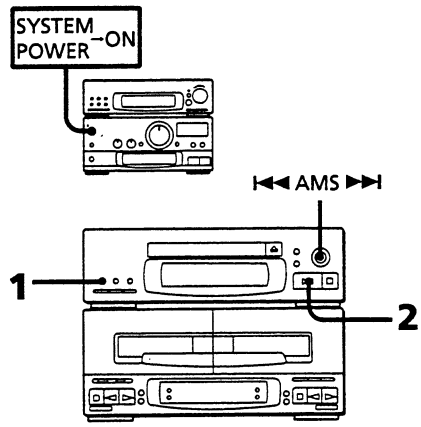
e.g. For the track number 21, press >10, 2, 1.
For the track number 20, press >10, 2, 10 (as the figure "0").

Notes on handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape onto the disc.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be a considerable rise in temperature inside the car.

Playing Tracks in Random Order (shuffle play)

You can play all the tracks on the CD in random order.
Use the buttons on the unit to do this operation.



1 Press PLAY MODE until "SHUFFLE" appears in the display.

2 Press ▷II.
"🔀" appears and then all the tracks play in random order.
To skip to the next track, turn ⏮ AMS ⏭ clockwise.
To replay the current track, turn ⏮ AMS ⏭ counterclockwise.
You cannot replay the previous track.

To stop playing

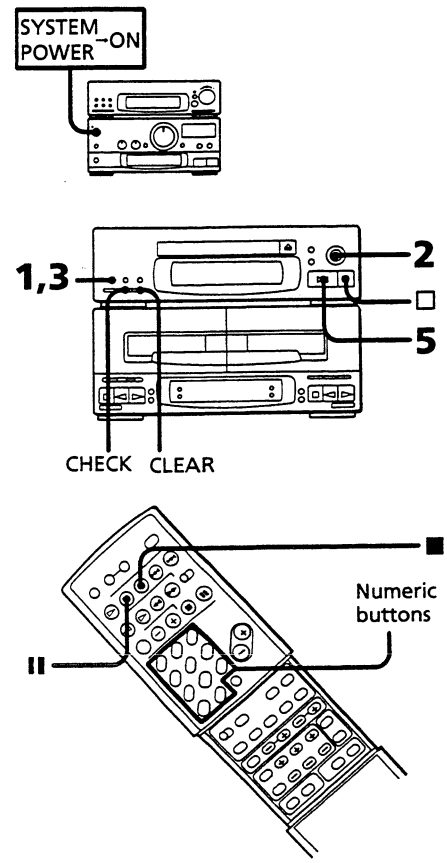
Press □.

To cancel shuffle play

Press PLAY MODE repeatedly until "SHUFFLE" disappears from the display. Tracks continue playing in their original order.

Playing Tracks in the Desired Order (programme play)

You can programme up to 24 tracks to play in the order you want them to play.
You can also use the remote to do this operation.



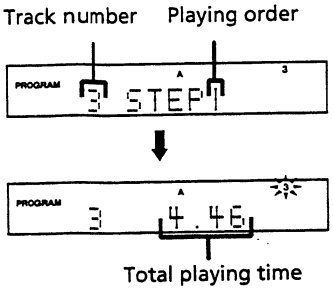
1 Press PLAY MODE until "PROGRAM" appears in the display.

2 Turn ⏮ AMS ⏭ to choose a track.
The track number and the total playing time appear.

3 Press PLAY MODE.
The chosen track is programmed.
The playing order, the track number and the total playing time appear. Also, the chosen track number lights up in the music calendar.
If the track number disappears before you press PLAY MODE, go back to step 2.

To programme tracks directly

1 Set the CD/MD switch to CD.
2 Press CD/MD ▷.
3 If the player starts playing, press ■ to stop.
4 Press the numeric buttons on the remote in the order you want them to play.



Notes

- If "STEP FULL" appears during programming, you have programmed a track number which exceeds 24.
- If the playing order and chosen track number in the music calendar flash, the total programmed time has exceeded 100 minutes.

4 To programme additional tracks, repeat steps 2 and 3.

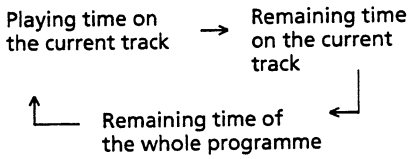
5 Press ▷II.
All the tracks play in the order you chose.

To	Press*1
Check the programme	CHECK repeatedly*2
Programme a pause	(II)*3
Stop play	□ (■)
Cancel the programme play	PLAY MODE*4
Erase a track from the end	CLEAR
Erase a specific track	CHECK repeatedly so the number of the track lights up, and press CLEAR
Erase the entire programme	□ (■) once in stop mode and twice while playing

*1 The buttons on the remote are indicated in parentheses.
*2 After the last track appeared "CHECK END" appears in the display.
*3 "P" appears and the total playing time is reset to 0.00.
*4 The programme is erased.

To check the remaining time of the programmed tracks

Press TIME repeatedly.
Each time you press TIME while playing a CD, the display changes as follows:



Note

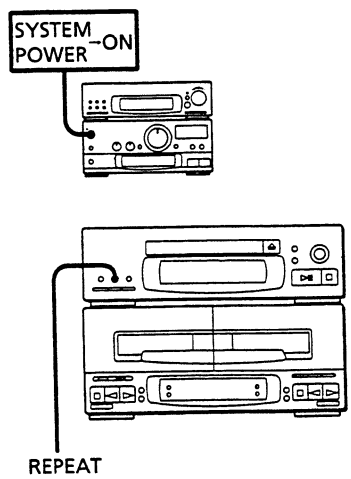
If "--.--" appears, this means the remaining playing time exceeds 100 minutes.

To change the order of programmed tracks

Erase the entire programme and create a new one.

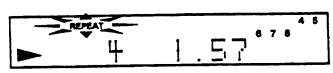
Playing Tracks Repeatedly (repeat play)

You can choose between two different repeat play modes. One repeats all the tracks in the current play mode; the other repeats a single track.
You can also use the remote to do this operation.



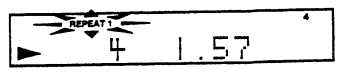
Repeating all the tracks (in any play mode)

Press REPEAT repeatedly until "REPEAT" appears in the display.



Repeating a single track (in normal play only)

Press REPEAT repeatedly while playing the desired track until "REPEAT 1" appears in the display.



To cancel repeat play

Press REPEAT so that "REPEAT" or "REPEAT 1" disappears from the display.

Chapter 3: the Radio

Listening to the Radio

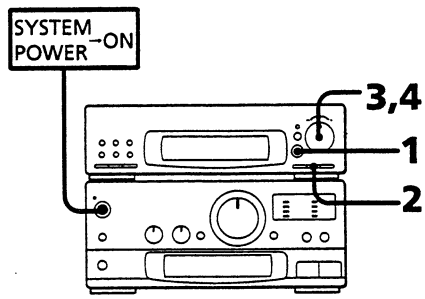
Presetting Radio Stations

Playing Preset Radio Stations

RDS Receiving

Listening to the Radio

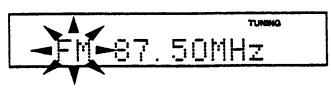
When you want to play a radio programme, you can have the tuner automatically scan the radio frequencies and tune in the stations with clear signals. This feature saves you time in searching for stations with clear signals. However, stations with weak signals may be skipped by automatic tuning. Manually tune in the ones skipped by automatic tuning.



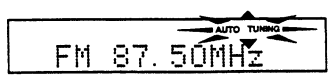
1 Press BAND repeatedly until the band you want appears in the display.
Each time you press BAND, the band changes as follows:

German and Italian models:
FM ↔ AM

Other models:
FM → MW → LW



2 Press TUNING MODE so that "AUTO TUNING" appears in the display.



3 Turn MULTI CONTROLLER.
The tuner starts scanning radio frequencies automatically, and stops when it finds a clear station. "TUNED" appears in the display window. "STEREO" also appears if the FM station tuned is broadcast in stereo.

4 If you don't want to listen to the station selected, turn MULTI CONTROLLER to restart the scan.

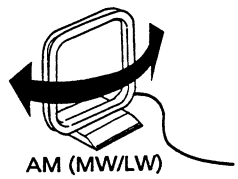
When the desired station is not tuned in

Automatic tuning may skip the station with weak signal and continue scanning without a stop. In this case, tune in the station manually.

1 Press TUNING MODE so that only TUNING is lit.
2 Turn MULTI CONTROLLER to the – or + side until the desired station is tuned in.

To improve AM (MW and LW) broadcast reception

Reorient the supplied AM loop aerial for AM (MW and LW).



When an FM programme is not clear to receive

Press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve. Press STEREO/MONO again to restore the stereo effect.

One Touch Play feature

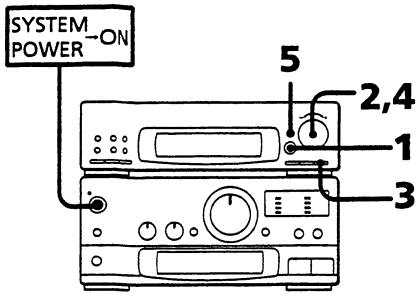
Press BAND (or BAND on the remote) when the power is off. You will be able to start listening to the last received station without pressing any other buttons.

Automatic Source Selection

If you press BAND (or BAND on the remote) while listening to another source, the tuner is selected and you will be able to start listening to the last received station automatically.

Presetting Radio Stations

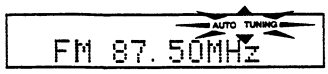
You can store radio frequencies in the tuner's memory to tune in your favourite stations quickly. You can preset up to 20 FM stations, 10 MW stations and 10 LW stations in any order. For German and Italian models, you can preset up to 20 FM stations and 10 AM stations.
Use the buttons on the unit for presetting stations.



1 Press BAND repeatedly until the band you want appears.

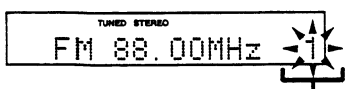
German and Italian models:
FM ↔ AM

Other models:
FM → MW → LW



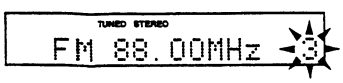
2 Turn MULTI CONTROLLER to tune in the station you would like to store.

3 Press MEMORY.
The MULTI CONTROLLER indicator and the ENTER/NEXT indicator flash, and a preset station number appears in the display for eight seconds.



Preset station number

4 Turn MULTI CONTROLLER to the – or + side to display the preset number you decided on (1 to 20 for FM, 1 to 10 for MW and LW).



5 Press ENTER/NEXT.
The station is stored at the preset number you decided.

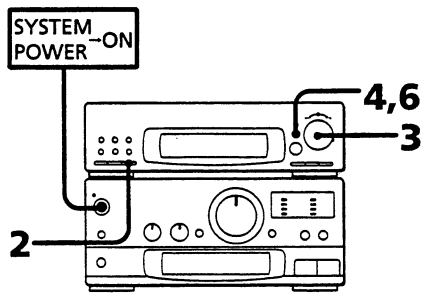
6 Repeat steps 1 to 5 for each station you would like to store.

To erase a stored station
Store a new station at a previously used preset station number. It will erase the old station and replace it with the new station.

If you have trouble storing a station or if you made a mistake
Repeat steps 1 to 5.

Assigning a name for a preset station (station name)

You can assign a name of up to eight characters for each preset station (except the LW stations). The station name appears in the display when all of the following conditions are met:
- You are tuning in a preset station.
- You have already assigned a name for that station.
- You have changed the frequency display to the station name display.



1 Tune in the preset station you would like to assign a name.

2 Press CHARACTER.
The MULTI CONTROLLER indicator, the ENTER/NEXT indicator, and the cursor (located at the first character) flash.

3 Turn MULTI CONTROLLER to the – or + side to select the character.

4 Press ENTER/NEXT.

5 Repeat steps 2 to 4 above to enter the next character.

6 Press ENTER/NEXT repeatedly when you finish entering the name.
The cursor moves to the right and disappears; the name is now memorized.

You can use these letters and symbols

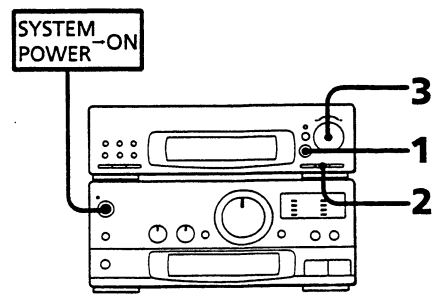
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z [\ ] ^ _ || a b c d e f g h i j
k l m n o p q r s t u v w x y z { | } ¯ ▮ á à
é è í ì ó ò ú ù Ñ Ç Ş ß İ IJ â ä ê ë î ï ô ö
û ü ñ ç ş ğ ı (space) ! " # ¤ % & ' ( ) * + ,
- . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @

To erase the station name
You can erase the station name by changing all the characters of that name into "spaces".
Use the buttons on the unit to do this operation.

To change the frequency display to the station name display
Each time you press DISPLAY, the frequency or station name (if you have stored any) appears in the display repeatedly.

Playing Preset Radio Stations

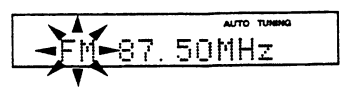
Once you have preset the stations, use the MULTI CONTROLLER to quickly tune in your favourite stations.
Use the buttons on the unit to do this operation.



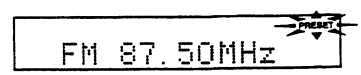
1 Press BAND repeatedly to select the band you want.

German and Italian models:
FM ↔ AM

Other models:
FM → MW → LW



2 Press TUNING MODE so that "PRESET" appears in the display.



3 Turn MULTI CONTROLLER to the – side or + side to tune in a preset station.
The station frequency or station name appears and the system begins receiving the station.

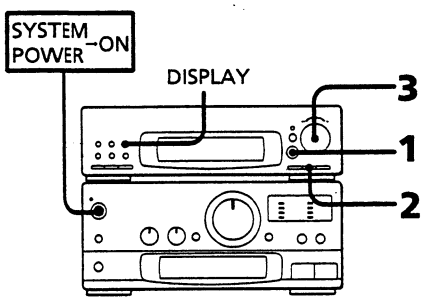
To tune in a preset station directly
Use the buttons on the remote to do this operation.
1 Press BAND to change the function mode of the numeric buttons to tuner mode.
2 Press BAND repeatedly until the band you want appears.
3 Press the numeric buttons to select the preset station number you want.

RDS Receiving

You can enjoy RDS services on this stereo system. RDS (Radio Data System) is a broadcasting service which allows you to receive additional information with the regular radio programme signal.

Receiving RDS Broadcasts

To receive RDS broadcasts, simply make sure the tuner is set to the FM band.
Use the buttons on the unit to do this operation.



1 Press BAND repeatedly to select FM.

2 Press TUNING MODE so that "PRESET" appears in the display.

3 Turn MULTI CONTROLLER to the – side or + side to tune in a preset station that provides RDS service.
"RDS" and the station name appear in the display.
"RDS" is lit while receiving the RDS broadcast.

To check the RDS information
Each time you press DISPLAY, the display changes as follows:

Station name → Frequency
↑ ↓
Radio text ← Programme type

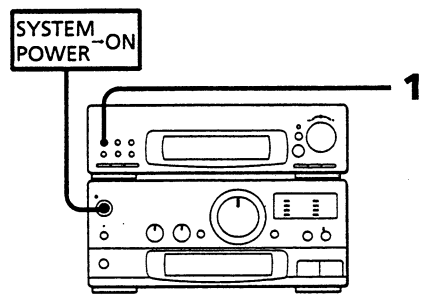
When "No PTY Data" appears in the display
The receiving station does not broadcast the programme type (PTY) you selected.

When "No Text Data" appears in the display
The receiving station does not broadcast the radio text data.

When "PTY Alarm" flashes in the display
There is an emergency announcement by governmental authorities.

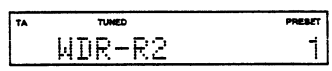
Monitoring Enhanced Other Networks (EON)

Enhanced Other Networks (EON)
You can have the unit automatically switch from the currently selected function to another network RDS station broadcasting a traffic, news or information programme. The tuner switches back to the original station after the programme is finished.
Use the buttons on the unit to do this operation.



1 Press EON to select the desired programme.
Each time you press EON, the display changes as follows:

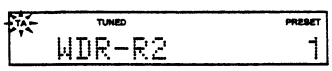
TA → NEWS
↑ ↓
(no display) ← INFO



The unit enters the EON standby mode and "TA" (Traffic-Announcement), "NEWS" or "INFO" (Information) appears in the display.

When "No TA service", "No News" or "No Info" appears in the display
There is no station which broadcasts the programme you selected.

2 When the unit automatically tunes in the selected programme, "TA", "NEWS" or "INFO" flashes in the display.
After the programme ends, the unit switches back to the last selected function.



To stop monitoring the programme
Press EON once.
The unit returns to the currently selected EON standby mode.

To receive the RDS information while the system power is turned off
Because EON standby mode works even when the power is off, you can receive the information you want whenever it is being broadcast.

1 Press EON so that "TA", "NEWS" or "INFO" appears in the display.
The unit enters the EON standby mode.
2 Press SYSTEM POWER to turn off the system.
"EON Wait?" and "Push EON KEY" appear alternately.
3 Press EON within six seconds.
"EON WAITING" appears in the display. The unit enters into the EON standby mode, and the system power is automatically turned on upon receiving an EON programme.
When the programme is finished, the unit is turned off and returns to the EON standby mode.

Notes
- Not all RDS stations provide EON service.
- The station will not switch if the current receiving station broadcasts the programme you selected (TA, NEWS or INFO).

When "Now TA" appears in the display
The current station broadcasts the Traffic-Announcement Identification.

When "Weak Signal" appears in the display
The current EON station cannot provide RDS data due to a weak signal.

When "Returning" appears in the display about four minutes after receiving a signal from an EON station
The current EON station cannot provide RDS data due to a weak signal. The unit is attempting to retune the EON station.

Notes on EON and recording
- EON receiving function does not operate while recording.
- If you begin recording during EON reception, the recording will automatically stop when the EON programme ends.

Notes on EON and the timer
- The station set with the timer will not be received if the timer is turned on while receiving an EON programme.
- The timer will not operate if you make the EON standby mode work, even while the timer is preset and the power is off. Make sure you turn EON off when setting the timer.

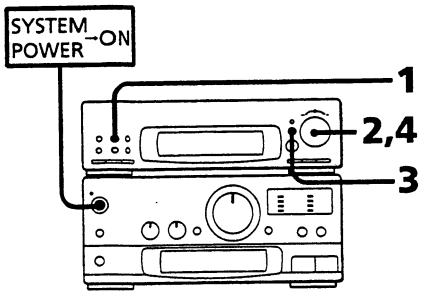
Notes on EON and the Function Selectors
- If you receive an EON programme while playing a tape or CD, the system automatically switches to tuner mode and the tape player stops playback or the CD player pauses playing.
When the EON reception finishes, the system returns to the playback of the previously selected sources.
- If you switch the function while receiving an EON programme, the system will not return to the former setting nor start playback when the broadcast ends.

Searching for RDS stations by Programme Type (PTY)

You can search through all the stored RDS stations for a specific type of programme currently being broadcast.

Note

If you want to tune in traffic, news, or information programmes as they occur on the RDS network, use the EON feature (see "Monitoring Enhanced Other Networks (EON)").
The unit automatically switches to these programmes and you can listen to them whenever they begin broadcasting.
Use the buttons on the unit to do this operation.

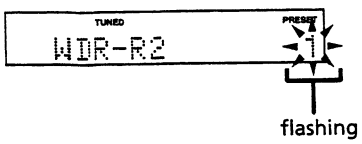


1 Press PTY.
"PTY Select" appears in the display.

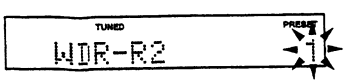
2 Turn MULTI CONTROLLER to the + or – side to select the programme type you want.

3 Press ENTER/NEXT.
The unit then begins searching for the preset RDS stations. While the unit is searching for the preset stations, "PTY Search" and the selected programme type are displayed alternately.

When a programme is received, the preset station number flashes in the rightmost side.



4 Turn MULTI CONTROLLER so that the desired preset station number flashes in the display.



You can listen to the selected programme while selecting the other programme.

To receive the desired programme

- leave the preset station number as it is for eight seconds
- press ENTER/NEXT while the preset station number is flashing

When "PTY not found" appears in the display

The programme that you selected is not currently being broadcasted. You will receive the last selected station.

When "PTY change" appears in the display

The programme type that you selected has ended while PTY scanning. You will receive another station if it broadcasts the same type of pragramme.

When "Text waiting" appears in the display while receiving Radio Text Data

Radio Text Data is not being provided.

Radio Text (RT)

You can receive text messages that appear in the tuner display.

List of Programme Type (PTY)

Identifies the type of RDS programme. This allows you to locate a specific type of programme being broadcast.
The programme types are as follows:

News
Programmes about the current news.

Affairs
Topical programmes which expand on the current news.

Information
Programmes about consumer affairs, medical advice, etc. and also weather reports.

Sport
Programmes about sport information.

Education
Programmes intended to educate, such as "How to" and advice programmes.

Drama
Radio plays and serials.

Culture
Programmes about national or regional culture, such as religion, language, and societal concerns.

Science
Programmes about the natural sciences and technology.

Varied
Other types of programming, such as celebrity interviews, panel games, and comedy.

Pop Music
Popular music.

Rock Music
Rock music.

M.O.R. Music
Middle of the road music ("easy listening"). Usually vocal and of short duration.

L. Classical
Classical music for general appreciation, such as instrumentals, and vocal and choral works.

S. Classical
Performances of major orchestras, chamber music, opera, etc.

Other Music
Music that does not fit into any of the above categories, such as jazz, rhythm and blues, and reggae.

Alarm
Emergency broadcasts.

PTY undefined
Any programming not defined above.

Chapter 4: the Tape Player

Playing a Tape

Recording a CD

Recording a CD: Selecting Tape Length Automatically (tape select edit)

Recording a CD: Specifying Tape Length (time edit)

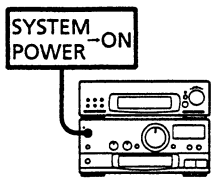
Recording a CD: Specifying Track Order (programme edit)

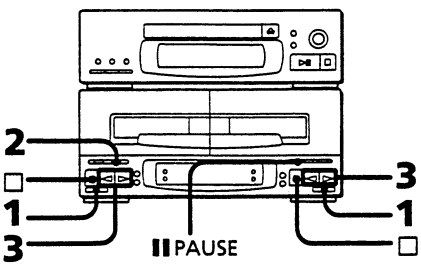
Recording From the Radio

Recording From Another Tape (dubbing)

Playing a Tape

You can use any type of tape. The deck detects the tape type automatically.
You can also use the remote to do this operation.

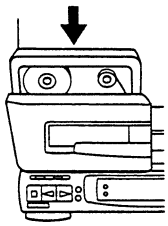




Note

When you use the remote for the following operations, press the TAPE DECK A/B buttons to switch the function of the buttons to either deck A or B.

1 Press ⏏ EJECT to open the tape compartment.
Insert a recorded tape in deck A or B with the tape side facing down. Push to close the compartment.



2 Set DIRECTION MODE to choose single-side, dual-side, or relay play. It affects both decks.

To play	Set DIRECTION MODE to
One side of the tape	⇄
Both sides*	⇆
Both decks in succession**	RELAY

* The deck stops automatically after repeating the sequence five times.
** See "To play both decks in succession (relay play)."

3 Press ▷ (to play the front side) or ◁ (to play the reverse side).
The tape starts playing.

To	Press*
Stop play	□ (■)
Pause (deck B only)	II PAUSE
Resume play after pause (deck B only)	II PAUSE or ◁ or ▷
Fast forward	□ (■) to stop, then press ▶▶ for front side or ◀◀ for reverse side
Rewind	□ (■) to stop, then press ◀◀ for front side or ▶▶ for reverse side
Remove the cassette	⏏ EJECT

* The buttons on the remote are indicated in parentheses.

To find the beginning of a track (AMS)

Using the AMS (Automatic Music Sensor) feature, you can quickly find the track you're looking for. The deck senses where a music track begins by detecting a blank space of more than four seconds between tracks.
AMS does not function while the other deck is being played.

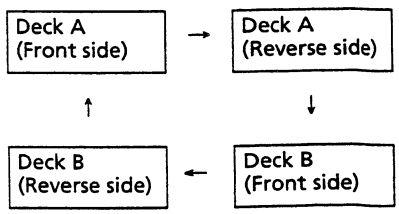
If the side of the cassette being played is the	To play the next track, press	To play the track being played, press
Front side (▷)	▶▶	◀◀
Reverse side (◁)	◀◀	▶▶

To play automatically after fast winding (auto play)

To start playing from the beginning of the front side, press ▷ while holding down ◀◀.
To start playing from the beginning of the reverse side, press ◁ while holding down ▶▶.

To play both decks in succession (relay play)

Relay play always follows the following sequence. When the reverse side of the tape in deck B finishes playing, the following sequence continues four more times.



1 Press ⏏ EJECT and insert recorded tapes in both decks.
2 Set DIRECTION MODE to RELAY.
3 Press ◁ or ▷ on either deck.

To stop relay play, press □ on the playing deck.

If you play both decks at the same time
You hear the sound from deck A.

When listening to a tape recorded with the Dolby* noise reduction system
Switch the DOLBY NR selector to B or C. The setting affects both decks. Dolby noise reduction system reduces tape hiss noise in low-level high-frequency signals.

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol ⧈ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

One Touch Play feature
Press ▷ or ◁ (or TAPE ▷/◁ on the remote) when the power is off.
When a tape is in the player, you will immediately be able to listen to the tape without pressing any other buttons. If no tape is inserted, the system will just turn on.

Automatic Source Selection
If you press ▷ or ◁ (or TAPE ▷/◁ on the remote) while another source is selected, the tape player is selected and play starts automatically.

To reset the counter
Press the COUNTER A/B button to display the counter for the deck you want to reset, and then press RESET (counter reset).

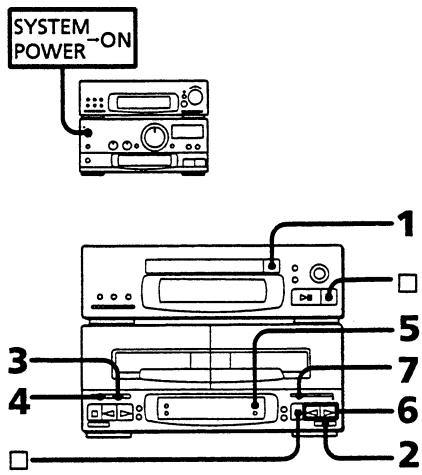
Recording a CD

You can record from a CD to a tape. Use any type of tape.
You cannot listen to other sources while recording.

To adjust the recording level
The recording level will be adjusted automatically.

Recording a CD Automatically

By using the CD SYNCHRO button, you can record from a CD to a tape easily. The track at the end of the tape does not break abruptly in the middle, but fades out automatically (Fade Synchro Recording). Use the buttons on the unit for this operation. (See "Glossary.")



1 Press ⏏ OPEN/CLOSE and place a CD on the tray. Then, press ⏏ OPEN/CLOSE again to close the tray.
Total number of tracks and the total playing time appears in the display.

2 Press ⏏ EJECT and insert a blank tape into deck B.
Make sure the tabs on the cassette have not been removed.

3 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇄
Both sides*	⊂⊃ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

4 When you want to reduce the hiss noise in low-level high-frequency signals, switch DOLBY NR selector to B or C. Dolby C provides greater noise reduction benefit than Dolby B.

5 Press CD SYNCHRO.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

6 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording. If it lights, skip to step 7.

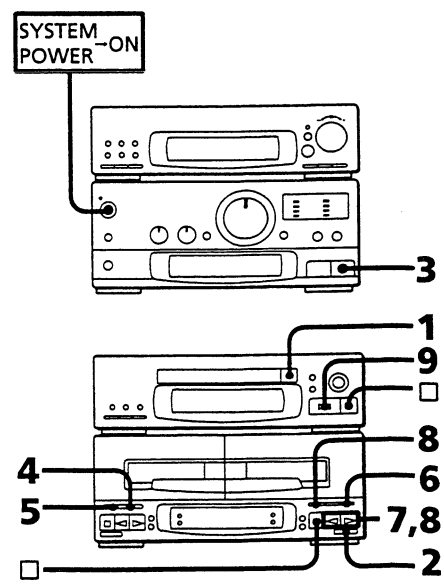
7 Press ⏸ PAUSE on the tape player to release recording pause.
Recording starts.
If the last track on side A has abruptly been cut, the track will record again from the beginning on side B when you choose dual-sided recording.
If you set DIRECTION MODE to ⊂⊃ or RELAY, recording always stops at the end of the reverse side.

To stop recording
Press □ on deck B or on the CD player.

Adjusting the volume will not affect the recording level
But this control will change the sound levels you hear through the speakers or headphones.

Recording a CD Manually

You can record a CD as you like, for instance, recording just the songs you want or recording from the middle of the tape. Use the buttons on the unit to do this operation.



1 Press ⏏ OPEN/CLOSE and place a CD. Then, press ⏏ OPEN/CLOSE again to close the tray.
Total number of tracks and the total playing time appear in the display.

2 Press ⏏ EJECT and insert a blank tape into deck B.
Make sure the tabs on the cassette have not been removed.

continue to next page →

→ continued

3 Press AUDIO (FUNCTION) until "CD" appears in the display.

4 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇄
Both sides*	⊂⊃ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

5 When you want to reduce the hiss noise in low-level high-frequency signals, switch DOLBY NR selector to B or C. Dolby C provides greater noise reduction benefit than Dolby B.

6 Press ● REC.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

7 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording. If it lights, skip to step 8.

8 Press II PAUSE on the tape player to release recording pause.
Recording starts. You can also start recording by pressing ▷ or ◁.

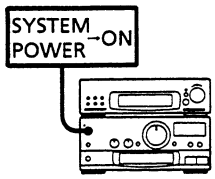
9 Press ▷II.
The CD player starts playing.

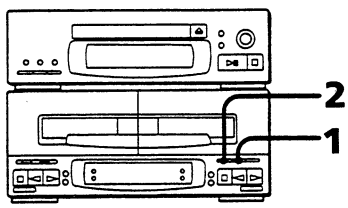
To	Press
Stop recording	□ on the deck B
Pause recording	II PAUSE on the deck B
Stop CD play	□ on the CD player
Pause CD play	▷II

Adjusting the volume will not affect the recording level
But this control will change the sound levels you hear through speakers or headphones.

Inserting a Blank Space During Recording

To activate the AMS function, it is necessary to insert a blank space between tracks.
Use the buttons on the unit to do this operation.





1 Press O REC MUTE while recording at the position where you want to insert the blank space.
"REC" in the display flashes and the tape runs without recording. After about four seconds, "REC" and II light, and the unit enters the recording pause mode.

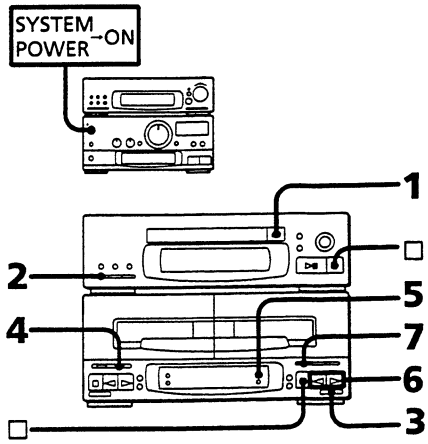
2 Press II PAUSE at the position where you want to start recording again.
Recording restarts.

To make a blank of more than four seconds
Press O REC MUTE for as long as needed. "REC" in the display flashes faster after four seconds have elapsed. The tape pauses when you release O REC MUTE.

To make a blank within four seconds
Press O REC MUTE while "REC" is flashing.

Recording a CD: Selecting Tape Length Automatically (tape select edit)

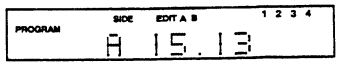
You can have the stereo system select and indicate the most suitable tape length for recording each disc automatically.
You cannot use Tape Select Edit for CDs which contain 21 tracks or more or when you have already programmed the CD.
Use the buttons on the unit to do this operation.



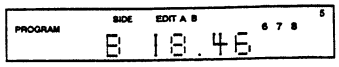
1 Press ⏏ OPEN/CLOSE and place a CD on the tray. Then press ⏏ OPEN/CLOSE again to close the tray.
The total number of tracks and total playing time appear in the display.

2 Press EDIT.
"TAPE SEL. (tape select)" flashes, and the player divides the selections automatically.
Then the display changes as follows:

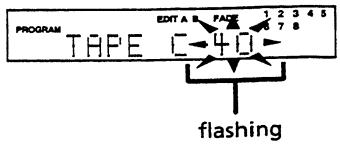
total playing time and tracks for side A



total playing time and tracks for side B



the required tape length



flashing

3 Insert a blank tape of the indicated tape length (or a longer tape) into deck B.

4 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇄
Both sides*	⊂⊃ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

5 Press CD SYNCHRO.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

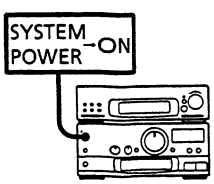
6 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording.
If it lights, skip to step 7.

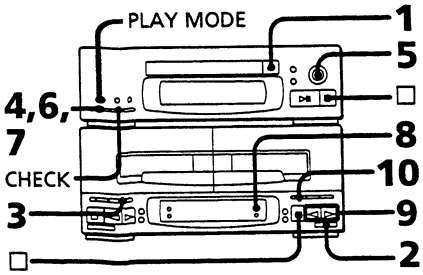
7 Press ⏸ PAUSE on the tape player to release recording pause.
Recording starts.
If the last track on side A has abruptly been cut, the track will record again from the beginning on side B when you choose dual-sided recording.
If you set DIRECTION MODE to ⇄ or RELAY, recording always stops at the end of the reverse side.

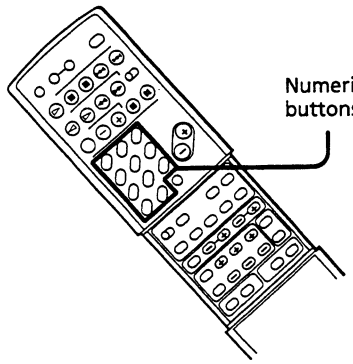
To stop recording
Press □ on deck B or on the CD player.

Recording a CD: Specifying Tape Length (time edit)

You can have the stereo system create programmes based on tape length.
The CD player makes programmes that will fit the tape length. For example, if you use a 40-minute tape to record a 46-minute CD, the CD player will automatically choose tracks that will fit within the 40 minutes, filling as much of the tape as possible. The player will not programme tracks beyond track number 21.







1 Press ⏏ OPEN/CLOSE and place a CD on the tray. Then press ⏏ OPEN/CLOSE again to close the tray.
The total number of tracks and the total playing time appears in the display.

2 Press ⏏ EJECT and insert a blank tape into deck B.
Make sure the tabs on the cassette have not been removed.

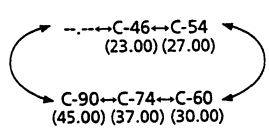
3 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇉
Both sides*	⇄ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

4 Press EDIT until "TIME EDIT" appears in the display.

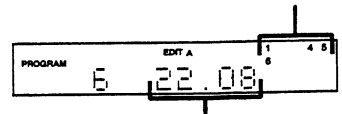
5 Turn ⏮ AMS ⏭ clockwise or counterclockwise to designate the tape length or "--.--".
Choose the indication for tapes of corresponding minute length.
As you turn ⏮ AMS ⏭, the indication changes as follows:



To specify the recording time
Use the numeric buttons (1 to 10) to specify the recording time on each side of the cassette.
e.g. To specify 11 minutes 30 seconds, press 1, 1, 3, 10.

6 Press EDIT.
The player determines the tracks to be recorded on side A automatically and "B" flashes in the display.

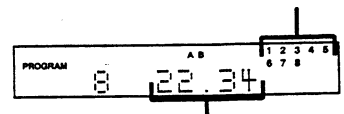
Tracks to be recorded for side A



Total playing time for side A

7 When you record on both sides, press EDIT again.
The player determines the tracks to be recorded on side B.

Tracks to be recorded for side A and B



Total playing time for side B

8 Press CD SYNCHRO.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

9 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording.
If it lights, skip to step 10.

10 Press ⏸ PAUSE on the tape player to release recording pause.
Recording starts.
If the last track on side A has abruptly been cut, the track will record again from the beginning on side B when you choose dual-sided recording.
If you set DIRECTION MODE to ⇄ or RELAY, recording always stops at the end of the reverse side.

To stop recording
Press □ on deck B or on the CD player.

To select the desired tracks beforehand
You can place priority on some tracks to be recorded by selecting them before programming them up to 20 tracks. See "Playing Tracks in the Desired Order (programme play)."

To check the order
Each time you press CHECK, the programme for side A, "P" (pause) and the programme for side B appear in order.

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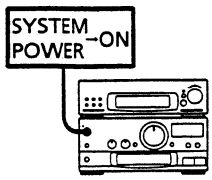
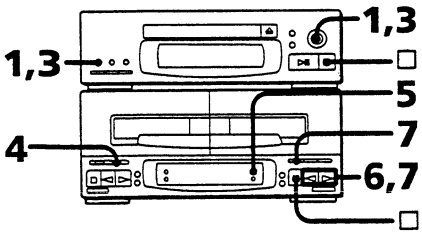
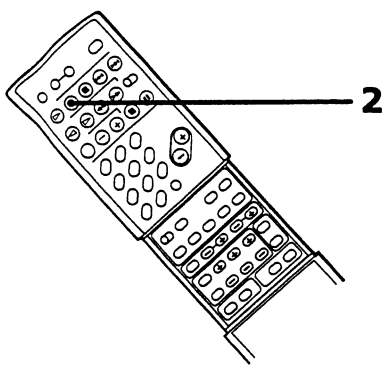
To cancel time edit
Before you press EDIT on step 4, press □ to cancel. If you want to cancel after you press EDIT on step 6, press PLAY MODE.

Recording a CD: Specifying Track Order (programme edit)

You can adjust the total recording time to the tape length while making a programme.







1 Following the procedure "Playing Tracks in the Desired Order (programme play)", programme the tracks you want to record for side A.
Make sure that "A" is lit in the display.
Make sure to programme the tracks so that the total playing time of side A does not exceed the tape length of one side.

2 Press II on the remote.
"P" and "B" appear in the display and the total playing time is reset to "0.00".

3 Programme the tracks you want to record for side B as the same as the side A.

4 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇄
Both sides*	⊂⊃ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

5 Press CD SYNCHRO.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

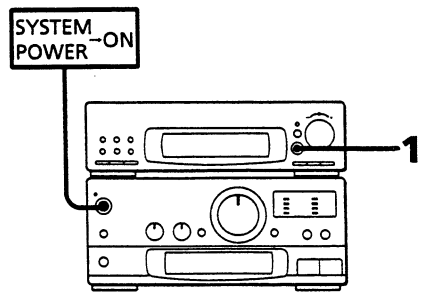
6 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording.
If it lights, skip to step 7.

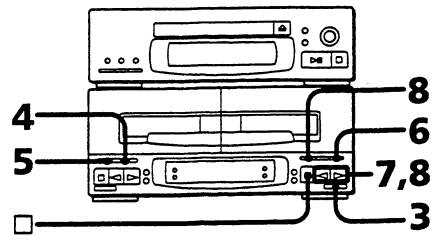
7 Press II PAUSE on the tape player to release recording pause.
Recording starts. You can also start recording by pressing ▷ or ◁.
If the last track on side A has abruptly been cut, the track will record again from the beginning on side B when you choose dual-sided recording.
If you set DIRECTION MODE to ⊂⊃ or RELAY, recording always stops at the end of the reverse side.

To stop recording
Press □ on deck B or on the CD player.

Recording From the Radio

You can record from the tuner onto a tape.
Use any type of tape.
Use the buttons on the unit to do this operation.





1 Press BAND several times until the desired radio band appears.

2 Tune in the radio station you want to record. (See "Listening to the Radio", or "Playing Preset Radio Stations" for details.)

3 Press ⏏ EJECT and insert a blank tape into deck B.
Make sure the tabs on the cassette have not been removed.

4 Select dual or single-sided recording.

To record	Set DIRECTION MODE to
One side	⇄
Both sides*	⊂⊃ or RELAY

* Recording always stops at the end of the reverse side. Be sure to start from the front side.

5 When you want to reduce the hiss noise in low-level high-frequency signals, switch DOLBY NR selector to B or C.
Dolby C provides greater noise reduction benefit than Dolby B.

6 Press ● REC.
Deck B stands by for recording.

The ▷ (for front side) or ◁ (for reverse side) indicator lights steadily and shows you which side will start recording. The other indicator flashes for a few seconds, then disappears.

7 If the indicator for the side you want to start recording does not light, press ▷ or ◁ to light the side to start recording.
If it lights, skip to step 8.

8 Press II PAUSE on the tape player to release recording pause.
Recording starts. You can also start recording by pressing ▷ or ◁.

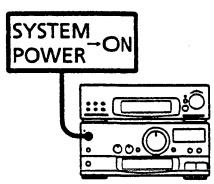
To stop recording
Press □ on deck B.

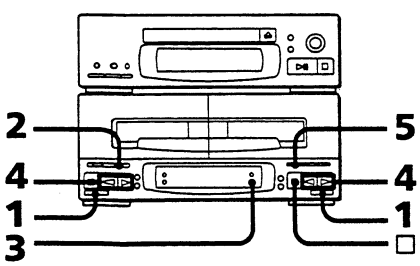
When recording AM broadcasts
Sometimes you may hear a whistling sound not normally heard when just listening to a broadcast. If this happens, adjust the position of the AM loop aerial until the whistling sound can no longer be heard.

Adjusting the volume will not affect the recording level
But this control will change the sound levels you hear through speakers or headphones.

Recording From Another Tape (dubbing)

You can record the whole tape onto another automatically. While dubbing, you can listen to the radio or a CD by pressing the AUDIO (FUNCTION) button to select "CD" or "TUNER". Use the buttons on the unit to do this operation and any type of tape for dubbing.





1 Press ⏏ EJECT, and insert a recorded tape in deck A and a blank tape in deck B.
Make sure the tabs on the cassette have not been removed.

2 Choose how you want the tape to record and set DIRECTION MODE to the mode you want.

Position	Operation
⇄	Dubbing stops at the end of one side
⇆	When the tape in one deck comes to the end of the front side, it reverses immediately regardless of the tape position in the other deck.
RELAY	When the tape in one deck reaches its end of the front side, it stops until the other tape come to its end, and then both tapes reverse together.

3 Press DUBBING MODE to select the dubbing speed you want.
Deck B stands by for recording.
Each time you press DUBBING MODE, the indicator lights in the following order:

NORM: dubbing at normal speed
↕
HIGH: dubbing at high speed

4 Choose the same direction on both decks by pressing ▷ or ◁.
To dub on one side, choose ▷ or ◁.
To dub on both sides, choose ▷.

When dubbing at normal speed
To choose the direction on deck A, press □ immediately after pressing ◁ or ▷.

5 Press ❚❚ PAUSE.
Dubbing starts.
When the tape has started dubbing from the reverse side in ⇆ mode, dubbing will stop at the end of the reverse side.

To stop dubbing
Press □ on deck B.

You do not have to set DOLBY NR
The tape in deck B is automatically recorded in the same state as the tape in deck A.

Listening to another audio source while dubbing is in progress
Select the sound source that you want to listen to, using the AUDIO (FUNCTION) button on the AV centre amplifier or on the remote.

Skipping tracks during normal-speed dubbing
Press the ◀◀ or ▶▶ buttons on deck A. Deck B stands by for recording, and you can skip tracks. To resume dubbing when the lead-in to a track is reached and playback begins, press the ❚❚ PAUSE button on deck B.

During high-speed dubbing
None of the buttons on either deck works, except for the □ button.

Chapter 5: Sound Adjustment

Adjusting the Sound

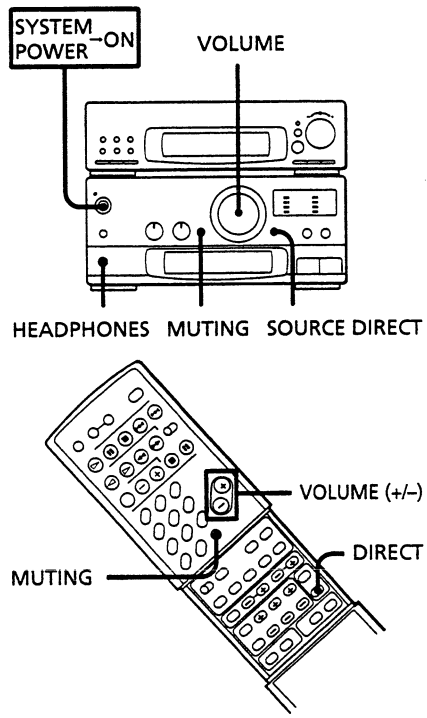
Selecting the Audio Emphasis (digital sound menu)

Adjusting the Sound

To fully enjoy the sound coming from your stereo system, make the following audio adjustments.

Adjusting the Volume

You can also use the remote to do this operation.



Turn VOLUME or press VOLUME (+/–) on the remote.

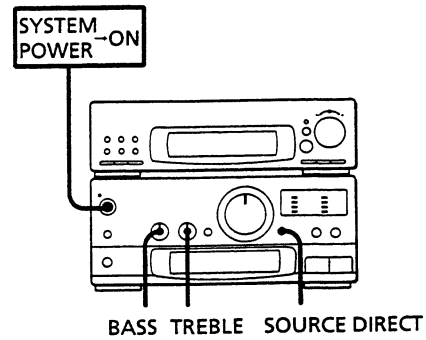
To reduce the volume temporarily (muting)
Press MUTING.
The indicator on the MUTING button lights up and the volume is reduced. To return to the original volume, press MUTING again.

To listen to music without any audio effects
Press SOURCE DIRECT (or DIRECT on the remote).
The indicator on the SOURCE DIRECT button lights up. The direct circuit on this unit passes the music signals directly to the outputs without sending them through the tone control.
This feature can be used when you want to listen to the music in its pure, unprocessed state.

To listen through the headphones
Connect the headphones to HEADPHONES jack. No sound will come from the speakers.

Adjusting the Tone

Use the buttons on the unit to do this operation.



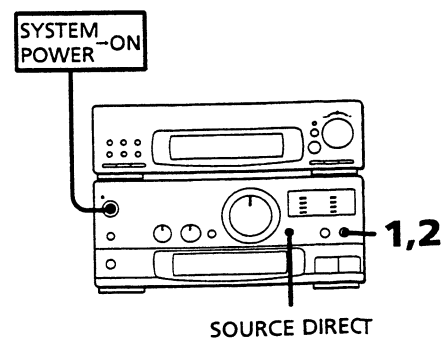
To adjust the bass sound
Turn the BASS control clockwise or counterclockwise.

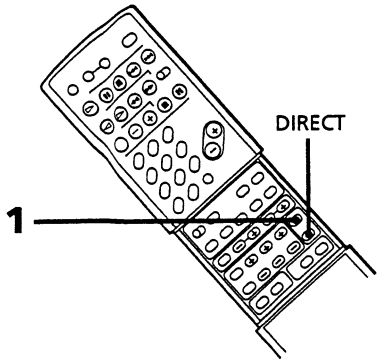
To adjust the treble sound
Turn the TREBLE control clockwise or counterclockwise.

Notes
- You cannot record the adjusted sounds
- When you cannot adjust the tone, press SOURCE DIRECT (or DIRECT on the remote) so that the indicator on the button goes off.

Selecting the Audio Emphasis (digital sound menu)

Your stereo system has been factory set to four specially recommended audio emphases (Digital Sound Menu). You can enjoy the digital sound effects simply by choosing from the Digital Sound Menu according to the programme source.





1 Press DSP (or DSP MENU on the remote).
The DSP mode turns on.

2 Keep pressing DSP until the display changes.
Each time you press the button, the display changes as follows:

HALL → STADIUM
↑ ↓
DANCE ← LIVE

To turn off DSP mode
Press DSP (or DSP MENU on the remote).
The DSP mode turns off.

Choose	To get
HALL	The atmosphere of a large hall
STADIUM	The feeling of listening in an open-air stadium
LIVE	The feeling of being at a live concert
DANCE	The sound similar to a disco which has hard floors and walls

To cancel the audio emphasis
Press SOURCE DIRECT (or DIRECT on the remote) so that "SOURCE DIRECT" appears in the display.
The direct circuit on this unit passes the music signals directly to the outputs without sending them through the DSP (Digital Signal Processor).
This feature can be used when you want to listen to the music in its pure, unprocessed state.

Note
When recording from a tape in deck A, a tape recorded with DOLBY NR off should be used in deck A.

Chapter 6: Dolby Pro Logic Surround

What is Dolby Pro Logic Surround?

Connecting Optional Video Equipment

Adjusting to Enjoy Dolby Pro Logic Surround Effects

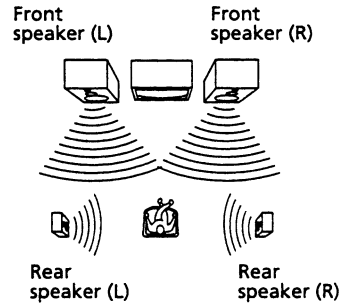
What is Dolby Pro Logic Surround?

Dolby Pro Logic Surround is a new standard from Dolby Laboratories Licensing Corporation, that was developed by improving the sound imaging capability of conventional Dolby Surround. Dolby Pro Logic Surround improves sound image by using four separate channels: off-screen audio effects, on-screen dialogue, left-to-right panning, and music. Thanks to Dolby Laboratories Licensing Corporation's unique directionality emphasis circuitry, sound imaging has greatly improved directional accuracy, especially in the case of moving sound effects, and makes you feel as if you were in the scene.
Dolby Surround is basically a home theatre audio system. Pro Logic is playback technology that uses professional decoder technology to recreate the sound field of a two-channel Dolby Surround signal as it was intended by the creators of the movie. Therefore, special entertainment software created for use with Pro Logic is not required; Pro Logic works with conventional Dolby Surround movie and music software.

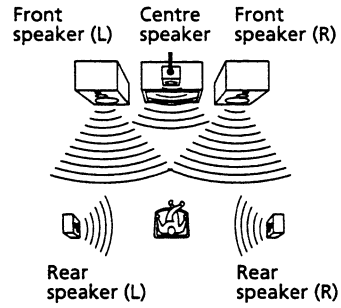
Dolby Pro Logic Surround Modes

Generally speaking, you should use front, rear, and centre speakers for fully effective Dolby Surround. However, one of the many advantages of Dolby Pro Logic Surround decoding is flexibility; the ability to choose a Pro Logic Surround mode suited to your speaker system. Refer to the following descriptions for details regarding the characteristics of each Pro Logic mode.

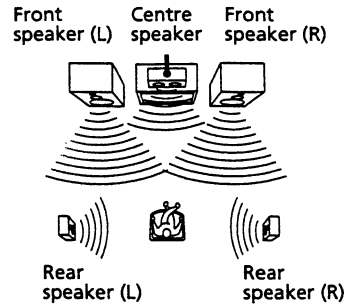
PHANTOM mode
Select this mode when you are not using a centre speaker. The sound for the centre channel is output from the front left and right speakers.



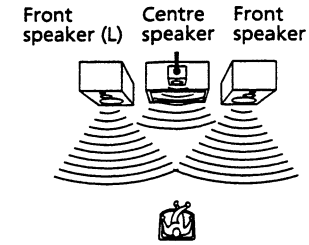
NORMAL mode
Select this mode when using a small centre speaker. Since a small speaker cannot reproduce a full bass sound, the low bass sound on the centre channel is output through the front left and right speakers.



WIDE mode
Select this mode when using a medium to large sized centre speaker that can reproduce the same extended bass sounds as the front left and right speakers.



3CH (channel) LOGIC mode
Select this mode when using only front and centre speakers. The sound for the rear channel is output through the front left and right speakers. You may want to use this mode when listening to non-Dolby Surround sources (such as a synthesized TV "stereo" or music recordings with vocal solos) even if you have rear speakers.

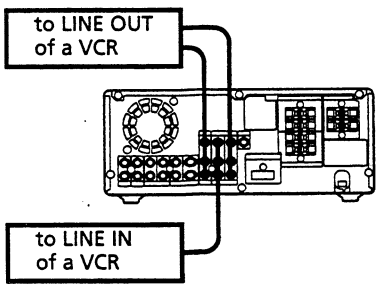


Connecting Optional Video Equipment

Connecting a VCR

You can connect a VCR and hear the sound through the connected speakers.
You can also record the VCR sound.

rear panel of the AV centre amplifier



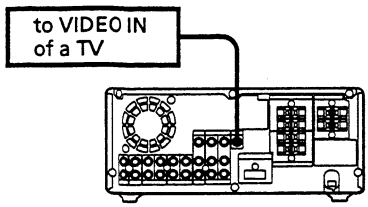
Connect	With
LINE IN jacks of the VCR	VIDEO1 OUT jacks
LINE OUT jacks of the VCR	VIDEO1 IN or VIDEO2 IN jacks

Use an audio/video connecting cable and make sure to connect the plugs to jacks of the same colour.
Then press VIDEO (FUNCTION) to select "VIDEO1" or "VIDEO2".

Connecting a TV

You can connect a TV and watch the picture of the connected equipment.

rear panel of the AV centre amplifier



Connect	With
VIDEO IN jack of the TV monitor	MONITOR OUT jack

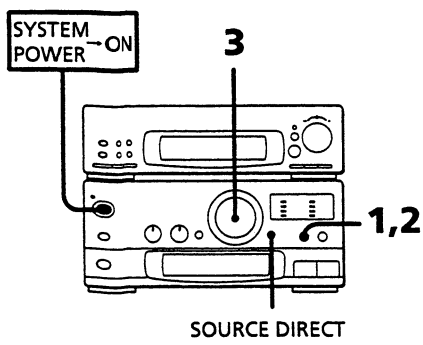
The connected visual source comes through the TV connected to the MONITOR OUT jack.

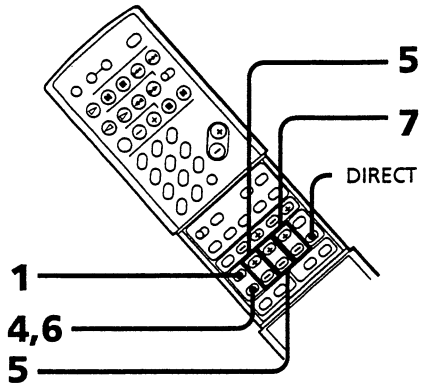
To control a VCR or TV with the supplied remote

The remote provided with this unit is equipped with TV and video operation buttons, and can be used to control the basic functions of Sony television sets and video decks.

Adjusting to Enjoy Dolby Pro Logic Surround Effects

This unit is equipped with Dolby Pro Logic Surround decoder*, so that the movement and positioning of the sound is reproduced with a completely natural feel.
This mode is effective for video software and TV broadcasts processed with Dolby Surround. This decoder allows you to enjoy music with a power that makes you feel as if you are listening in a movie theatre or at a live concert.





1 Press DOLBY PRO LOGIC (or PRO LOGIC on the remote).
The Dolby Pro Logic mode turns on.

2 Keep pressing DOLBY PRO LOGIC until the display changes.
Each time you press the button, the display changes as follows:

PHANTOM → NORMAL
↑ ↓
3CH LOGIC ← WIDE

When you use the supplied speakers, select NORMAL mode.
For details of each mode, see "Dolby Pro Logic Surround Modes."

3 Turn VOLUME so that the volume for the front speakers is set to your normal listening volume.

4 Press TEST TONE on the remote. The test tone is automatically generated by each speaker in one of the sequences shown below. (The channel corresponding to the speaker currently generating the tone flashes on the display.)

- When in PHANTOM mode:
  Front left → Front right
  ↑ Rear ↵
- When in NORMAL mode or WIDE mode:
  Front left → Centre → Front right
  ↑ Rear ←
- When in 3CH LOGIC mode:
  Front left → Centre → Front right
  ↑

5 While sitting in your normal listening position, adjust the volume using CENTER LEVEL +/– and REAR LEVEL +/– on the remote so that the volume that you hear from each speaker is at the same level. (When you turn VOLUME on the AV centre amplifier, the volume changes for all speakers.)

6 After you have finished making all adjustments, press TEST TONE to shut off the test tone.

7 Press DELAY TIME (+/–) on the remote to adjust the delay time.
Each time you press the buttons, the display changes as follows:

15msec ↔ 20msec
↕ ↕
30msec ↔ 25msec

Note

You cannot adjust the delay time when in 3CH LOGIC mode.

To turn off Dolby Pro Logic

Press DOLBY PRO LOGIC (or PRO LOGIC on the remote) again or press SOURCE DIRECT (or DIRECT on the remote).
The Dolby Pro Logic mode turns off.

* Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol ⧈ and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Notes

- The test tone is produced only when the DOLBY PRO LOGIC mode is selected.
- If you change the place where you listen to music, you should perform the test tone adjustment again.
- The delay time adjustment is simplified if you use a commercially available test video on which a signal used for delay time adjustment has been recorded.

Chapter 7: Additional Features

Falling Asleep to Music

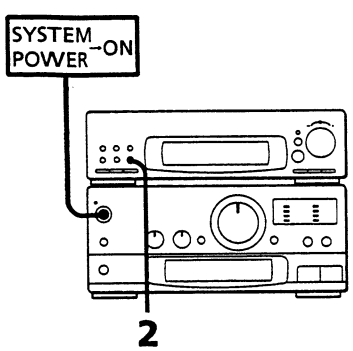
Waking Up to Music

Timer-Recording Radio Programmes

Connecting Optional Equipment

Falling Asleep to Music

You can set the stereo system to turn off automatically so you can go to sleep to music.
Before setting the sleep timer, make sure the clock has been set correctly. If not, "Set clock!" appears and the display changes to the clock setting display.
You can also use the remote to do this operation.



1 Play your favourite sound source (a tape, the tuner or CD).

2 Press SLEEP while the source is playing to choose how long you want the music to play.
"SLEEP" and the minutes indication appear in the display. As you press SLEEP, the indication decreases by ten minutes from 90 to 10.

The power will turn off after 90 to 10 minutes depending on the length of time you chose.

90min → 80min → ... 10min → OFF

To cancel the sleep timer
Press SLEEP repeatedly until "OFF" appears in the display.

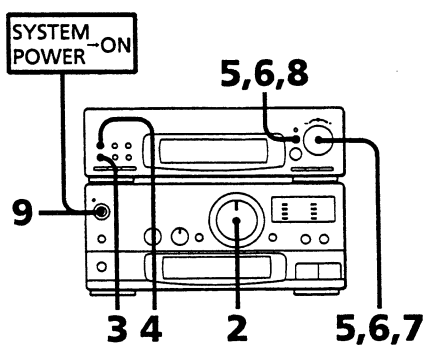
To check the remaining time before the sleep timer turns off the system
Press SLEEP once.
The remaining time in minutes is displayed for several seconds.

To change the remaining time while the sleep timer is in operation
Press SLEEP repeatedly and select the remaining time you want.

To turn off the system before the sleep timer turns off the system
Press SYSTEM POWER.

Waking Up to Music

You can wake up to music at a preset time. You need only set the timer once. Set the DAILY timer which is activated every day. When you select the CD player as the sound source, you can play a CD in any play mode (normal, shuffle or programme). The timer will remain activated until you reset it or you disconnect the power cord.
You can also set the timer while the power is off.
Before setting the timer, make sure the clock is set correctly.
Use the buttons on the unit to do this operation.



1 Prepare the sound source.

To wake up to the radio
Tune in the preset station you want.

To wake up to a CD
Insert a CD. If you want to play it from a desired track, do the necessary procedures for programmed CD play. (See "Playing Tracks in the Desired Order.")

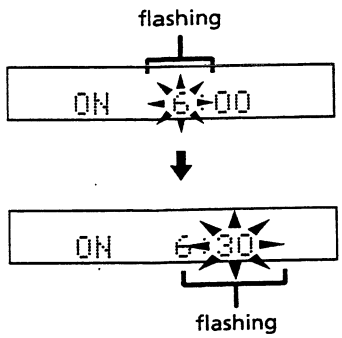
To wake up to a tape
Insert a tape. If you insert the tapes in both decks, you hear the sound from deck A.

2 Turn VOLUME to adjust the volume.

3 Press TIMER SET.
The DAILY and REC indicators flash and "Select timer" appears in the display.

4 Press DAILY.
The MULTI CONTROLLER indicator and the ENTER/NEXT indicator flash. "ON" appears and the hour digits flash in the display.

5 Set the hour you want the music to go on by turning MULTI CONTROLLER (–/+), then press ENTER/NEXT. Set the minutes the same way.
"OFF" appears and the hour digits flash again.



6 Set the hour you want the music to go off by turning MULTI CONTROLLER (–/+), then press ENTER/NEXT. Set the minutes the same way.
The sound source setting screen appears.

7 Choose a sound source by turning MULTI CONTROLLER (–/+):

CD PLAY ↔ TUNER
↕ ↕
MD PLAY ↔ TAPE PLAY

8 Press ENTER/NEXT.
After "DAILY TIMER" appears, the preset items appear in the display sequentially.

9 Press SYSTEM POWER to turn off the system.
About 15 seconds before the preset time, the power will go on and the music will play. At the turn-off time, the power will go off again.

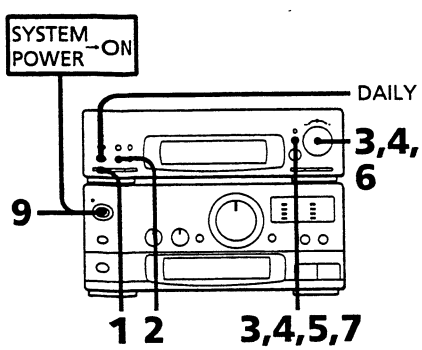
If you made a mistake during setting procedure
To change the timer settings
Repeat steps 1 to 9.

To check the preset items
To cancel the timer
To activate the timer again
See "Timer-Recording Radio Programmes".

Note on tape direction when setting the wake-up timer
When tape playback is set with the wake-up timer, the tape plays back in the direction currently displayed. Always confirm the tape direction before turning off the power.

Timer-Recording Radio Programmes

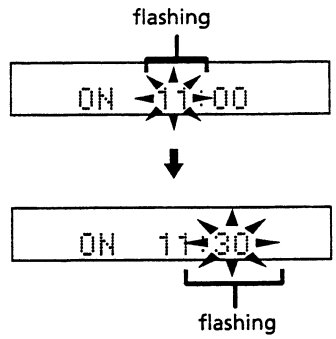
You can set the timer to record the radio at a certain time. This timer works only once for each setting. The volume level is automatically set to MIN.
You can record with a Sony MD recorder with the AU BUS. Be sure to connect the equipment to the AU BUS jack.
Before setting the timer, make sure the clock is set correctly.
Tune in the preset station.
Use the buttons on the unit to do this operation.



1 Press TIMER SET.
The DAILY and REC indicators flash and "Select timer" appears in the display.

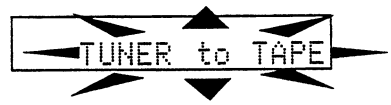
2 Press REC so that the MULTI CONTROLLER indicator and the ENTER/NEXT indicator flash.
"ON" appears and the hour digits flash in the display.

3 Set the hour you want to start recording by turning MULTI CONTROLLER (–/+), then press ENTER/NEXT. Set the minutes the same way.
"OFF" appears and the hour digits flash again.



4 Set the hour you want to stop recording by turning MULTI CONTROLLER (–/+), then press ENTER/NEXT. Set the minutes the same way.

5 Press ENTER/NEXT so that "TUNER to TAPE" flashes.



6 Turn MULTI CONTROLLER (–/+) to select the recording equipment.
The display changes as follows:

TAPE ↔ MD

7 Press ENTER/NEXT.
The preset items appear in the display sequentially.

8 Prepare the recording equipment.

To record on a tape
Insert a tape into deck B.
If necessary, select the direction mode and Dolby NR.

To record on a mini disc
Insert a mini disc into the MD recorder.

9 Press SYSTEM POWER to turn off the system.

To check the preset items
Press DAILY or REC so that the preset items appear for 3 seconds, then the original display returns. (Press it again when the preset items do not appear.)

To change the timer settings
Repeat steps 1 to 9.

To cancel the timer
Press DAILY or REC so that "TIMER OFF" appears for 3 seconds, then the original display returns.

To activate the timer again
Press DAILY or REC and make sure that the preset items appear in the display. After 3 seconds, the display returns to the clock display.

If the power is on at the preset time
The sound source will automatically change to the tuner, but tuner recording will not start.

Note on tape direction when setting the recording timer
Recording starts in the tape direction currently displayed. To start recording on the side of the tape facing you, be sure to set the tape direction to ▷. If the recording timer is set with the tape direction set to ◁, recording starts on the opposite side of the tape, and stops when the end of the opposite side of the tape is reached. Always confirm the tape direction before turning off the power.

Notes
- You cannot set the timer if the timer-on and -off times are the same.
- The operation initiated by the timer actually starts 30 seconds before the timer-on time (10 seconds before the power turns on). If you perform another operation during these 30 seconds, the timer operation will not be performed normally.

Connecting Optional Equipment

For greater enjoyment of your stereo system, you can connect other components to the stereo. You can connect:

- an MD recorder
- a DAT deck
- surround speakers
- headphones

Connecting an MD Recorder or a DAT Deck

Select one of the following two connections, depending on the equipment to be connected and the method of recording.

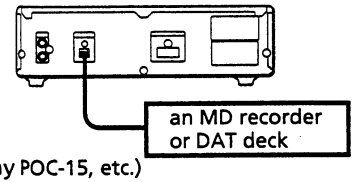
- an MD recorder or DAT deck for digital recording
- an MD recorder or DAT deck for analog recording

continue to next page →

→ continued

To connect an MD recorder or a DAT deck for digital recording
You can record from the CD into the MD recorder or DAT deck digitally.

rear panel of the CD player

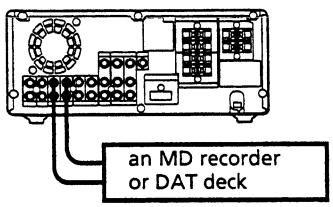


(Sony POC-15, etc.)

Connect	With
DIGITAL IN jack of the MD recorder or DAT deck	CD DIGITAL OPTICAL OUT using an optical cable (Sony POC-15, etc.)

To connect an MD recorder or a DAT deck for analog recording
You can record from the sound sources of the stereo into the MD recorder or DAT deck in analog sound.
You can also listen to the sound from the MD recorder or DAT deck.

rear panel of the AV centre amplifier

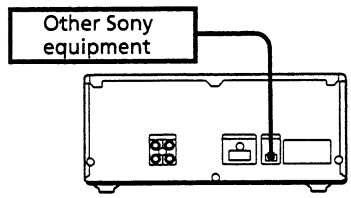


Connect	With
LINE IN jacks of the MD recorder or DAT deck	MD/DAT OUT jacks
LINE OUT jacks of the MD recorder or DAT deck	MD/DAT IN jacks

Use audio cords and make sure to connect the plugs to jacks of the same colour.
Then press either of the VIDEO/AUDIO (FUNCTION) buttons to select the sound sources.

To connect other equipment with AU BUS jack
You can connect other Sony equipment with AU BUS.

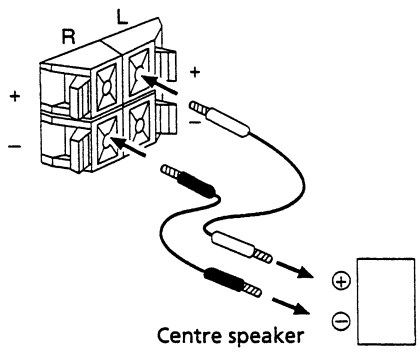
rear panel of the tape player



* You can use Automatic Source Selection, Synchronized Recording and Timer Recording with the connected equipment.
However, these features may not be provided on some models.

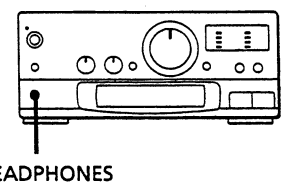
Connecting Audio Optional Equipment

To connect surround speakers
You can connect the other surround speakers to the stereo.
When connecting speakers purchased separately, disconnect the connecting cords for the speakers provided. For details, refer to the instructions provided with the speakers.
- Make sure to connect the rear speaker to two of the REAR SPEAKER jacks. You cannot listen to the sound when connected to one jack only.
- If you connect the centre speaker with one cable, be sure to connect it to the + terminal of L connector and – terminal of R connector.



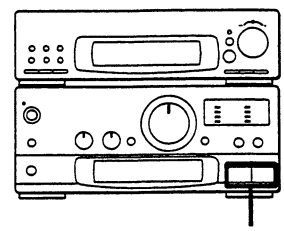
To connect headphones
You can connect the headphones (stereo phone jack) to the HEADPHONES jack.

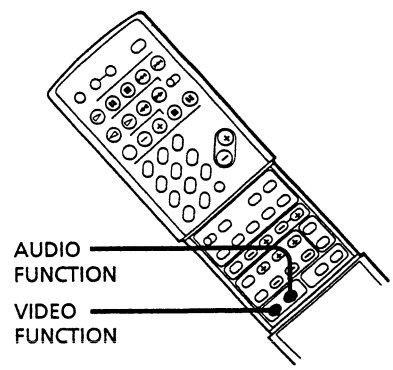
front panel of the AV centre amplifier



Mixing Audio/Video Sources

You can watch a TV or video tape while playing a CD or other such audio equipment as background music.
In other words, you can use the VIDEO/AUDIO (FUNCTION) buttons to select the audio/visual sources.
For details, refer to the instructions for your VCR.





1 Press VIDEO (FUNCTION) to select the video that you want to watch or edit. "VIDEO1" or "VIDEO2" appears in the display.

2 Press AUDIO (FUNCTION) to select the sound source. "TUNER", "TAPE", "MD/DAT" and "CD" appear in the display in sequence. The video equipment that you selected previously remains selected.

3 Start playback on each of the selected units.

You can also record the selected sound and video together by using another VCR. For details on how to record mixed sound and video, refer to the instructions provided with each unit.

For Your Information

Precautions

Troubleshooting Guide

Maintenance

Specifications

Glossary

Index to Parts and Controls

Index

Precautions

If you have any questions or problems concerning your stereo system, please consult your nearest Sony dealer.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the component, unplug the stereo system and have the component checked by qualified personnel before operating it any further.
- AC power cord must be changed only at the qualified service shop.
- The unswitched socket outlets remain live, independently of power switch setting, at all times when the unit is connected to the AC power supply.

On installation

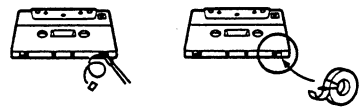
Place the stereo system in a location with adequate ventilation to prevent heat build-up in the stereo system.

On condensation in the CD player component

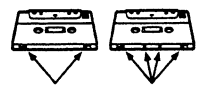
If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player. Should this occur, the CD player will not operate. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated. If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.



When you are using a TYPE II (CrO_2) or TYPE IV (METAL) cassette, be careful not to cover the detector slots which allow the tape player to automatically detect the type of tape.



Detector slots

In case colour irregularity is observed on nearby TV screens

With the magnetically shielded type of the speaker system, the speakers can be installed near a TV set. However, colour irregularity may still be observed on the TV screen depending on the type of your TV set.

If colour irregularity is observed...

Turn off the TV set once, then turn it on after 15 to 30 minutes.

If colour irregularity is observed again...

Place the speakers farther away from the TV set.

Troubleshooting Guide

If you run into any problem using this stereo system, use the following check list. And first check the following points:

- The power cord is connected firmly.
- The speakers are connected correctly and firmly.

Should any problem persist after you have made the checks below, consult your nearest Sony dealer.

Tuner

"TUNED" flashes in the display.
→ Adjust the aerial.

"STEREO" flashes in the display.
→ Adjust the aerial.

Severe hum or noise.
→ Adjust the aerial.
→ The signal strength is too weak. Connect the external aerial.
→ Connect the ground wire.

A stereo FM programme cannot be received in stereo.
→ Press STEREO/MONO so that "STEREO" appears.

"No PTY Data" or "No Text Data" appears in the display when trying to receive RDS (Radio Data System) information.
→ Contact the radio station and find out whether or not they actually provide the RDS service in question. If so, the service may be temporarily out of order.

Tape Player

The tape does not record.
→ No tape in the cassette holder.
→ The tab has been removed from the cassette.
→ The tape has reeled to the end.

The indicator of the CD SYNCHRO button flashes 3 times and disappears.
→ The tab has been removed from the cassette.

The indicator of the DUBBING MODE (HIGH or NORM) button flashes 3 times and disappears.
→ The tab has been removed from the cassette.

The tape does not record nor playback or there is a decrease in sound level.
→ The heads are dirty. Clean them.
→ Magnetic deposits have built-up on the record/playback heads.*

There is excessive wow or flutter, or the sound drops out.
→ The capstans or pinch rollers are contaminated.*

The tape does not erase completely.
→ Magnetic deposits have built-up on the record/playback heads.*

Noise increases or the high frequencies are erased.
→ Magnetic deposits have built-up on the record/playback heads.*

* See "Maintenance."

continue to next page →

→ continued

CD Player

The CD tray does not close.
→ The CD is not placed correctly.

The CD will not play.
→ The CD is dirty.
→ The CD is inserted label side down.
→ Moisture condensation has built up.
Leave the system turned on for about an hour until the moisture evaporates.

Play does not start from the first track.
→ The player is in programme or shuffle mode. Press PLAY MODE.

"OVER" is displayed.
→ ▶▶ was repeatedly pressed at the end of the CD. Press ◀◀ (or I◀◀ on the remote) to return to the normal display.

General

There is no sound.
→ Rotate VOLUME clockwise.
→ The headphones are connected. Disconnect them.

There is no sound from the speakers except the centre speaker when in Pro Logic mode (applies only in NORMAL, WIDE, or 3CH LOGIC mode).
→ The source being played back is monaural. Turn off Pro Logic mode.

There is no sound from the centre speaker.
→ The Pro Logic mode is set to PHANTOM mode. Select another mode.
→ Set the CENTER LEVEL to the desired level.
→ Check the centre speaker connection and connect the speaker correctly.
If you connect the centre speaker with one cable, be sure to connect it to the + terminal of L connector and – terminal of R connector.
See "Connecting Audio Optional Equipment."

There is almost no sound from the rear speakers.
→ The Pro Logic mode is set to 3CH LOGIC mode. Select another mode.
→ Set the REAR LEVEL on the remote to the desired level.
→ The software being played back has limited sound effects. Check the volume with the test tone.
→ The rear speaker is connected to one jack only. Make sure to connect it to two of the REAR SPEAKER jacks.

Sound comes from one channel or unbalanced left and right volume.
→ Check the speaker connections of the inoperative channel.

The left and right sound are reversed.
→ Check the speaker connection and speaker placement.

Bass is lacking or the location of the musical instruments is apparently imprecise.
→ Check the speaker connection for proper phasing.

There is severe hum or noise.
→ A TV or VCR is too close to the stereo system. Move the stereo system away from the TV or VCR.

"0:00" flashes in the display.
→ A power interruption occurred. Set the clock and timer settings again.

The remote does not function.
→ The batteries have run down. Replace both batteries.
→ There is an obstacle between the remote and the system. Remove the obstacle.

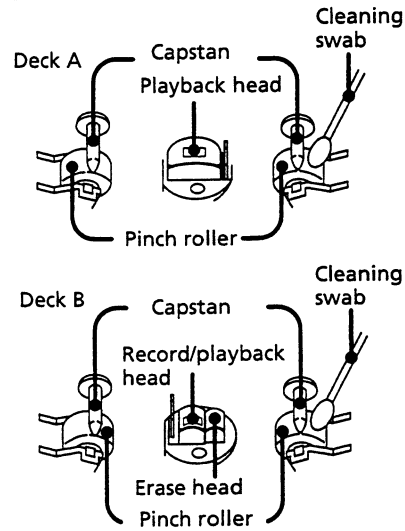
Restoring the factory settings

For the tuner
After unplugging the power cord, hold down BAND and then plug the power cord back into the wall outlet.

Maintenance

To clean the tape heads and tape path
Contaminated tape heads cause poor recording or sound drop-out in playback. We recommend cleaning after every 10 hours of operation.

Open the cassette holder and wipe the heads, the pinch rollers and the capstans with a cleaning swab slightly moistened with cleaning fluid or alcohol. Wipe the parts shown below:



Insert a tape when the areas cleaned are completely dry.

To demagnetize the tape heads
After 20 to 30 hours of use, enough residual magnetism will have built up on the heads to begin to cause loss of high frequencies and hiss. At this time, demagnetize the heads and all metal parts in the tape path with a commercially available tape head demagnetizer. Refer to the instructions of the demagnetizer.

To clean the cabinet
Use a soft cloth slightly moistened with mild detergent solution.

To clean the CD
When a CD is dirty, clean it with a cleaning cloth. Wipe the CD from the centre out.

Notes on CD
- Do not use solvents such as benzene, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.
- If there is a scratch, dirt or fingerprints on the CD, it may cause a tracking error.

Specifications

CD player (CDP-EX10)

System: Compact disc digital audio system
Laser: Semiconductor laser
Wavelength: 780 – 790 nm
Frequence response: 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio: More than 105 dB
Dynamic range: More than 95 dB
Outputs
CD OUT (phono jacks):
Output level 2 V
(at 50 kilohms)
Load impedance over 10 kilohms
CD DIGITAL OPTICAL OUT
(Square optical connector jack, rear panel):
wave length 660 nm
output level –18 dBm
Dimensions
Approx. 280 x 85 x 285 mm (w/h/d)
(11 1/8 x 3 3/8 x 11 1/4 inches)
Mass: Approx. 2.0 kg (4 lb 7 oz)

Tuner (ST-EX10)

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 – 108.0 MHz
Antenna terminals: 75 ohm unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

Tuning range
For Italian models:
AM: 522 – 1,611 kHz
For German models:
AM: 531 – 1,602 kHz
For other models:
MW: 531 – 1,602 kHz
LW: 153 – 279 kHz
Aerial: AM loop aerial
External aerial terminals
Intermediate frequency: 450 kHz
Dimensions
Approx. 280 x 85 x 290 mm (w/h/d)
(11 1/8 x 3 3/8 x 11 1/2 inches)
Mass: Approx. 1.6 kg (3 lb 9 oz)

Stereo cassette deck (TC-EX10)

Recording system: 4-track 2-channel stereo
Frequency response
(DOLBY NR OFF)
40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette
40 – 14,000 Hz (±3 dB), using Sony TYPE II cassette
40 – 15,000 Hz (± 3 dB), using Sony TYPE IV cassette
Wow and flutter: 0.1% WRMS±0.3% (DIN)

Dimensions
Approx. 280 x 125 x 285 mm (w/h/d)
(11 1/8 x 5 x 11 1/4 inches)
Mass: Approx. 3.0 kg (6 lb 10 oz)

AV centre amplifier (TA-EX9)

DIN power output
FRONT: 60 W + 60 W (6 ohms, at 1 kHz)
CENTER: 20 W (6 ohms, at 1 kHz)
REAR: 7 W + 7 W (6 ohms, at 1 kHz)
Continuous RMS power output
FRONT: 70 W + 70 W (6 ohms, at 1 kHz, 5% THD)
CENTER: 28 W (6 ohms, at 1 kHz, 5% THD)
REAR: 10 W + 10 W (6 ohms, at 1 kHz, 5% THD)

Input	Jack type	Sensitivity	Impedance
CD	Phono	450 mV	47 kilohms
MD/DAT	Phono	450 mV	47 kilohms
TUNER	Phono	250 mV	47 kilohms
VIDEO1	Phono	250 mV	47 kilohms
VIDEO2	Phono	250 mV	47 kilohms
TAPE	Phono	250 mV	47 kilohms

Output	Jack type	Voltage	Impedance
MD/DAT	Phono	250 mV	1 kilohm
VIDEO1	Phono	250 mV	1 kilohm
TAPE	Phono	250 mV	1 kilohm
HEADPHONES	Stereo phone	—	Accepts headphones of 8 ohms or more

MONITOR OUT (phono jack):
1 Vp-p/75 ohms
FRONT SPEAKER:
accepts speakers of 6 to 16 ohms
CENTER SPEAKER:
accepts speakers of 6 to 16 ohms
REAR SPEAKER:
accepts speakers of 6 to 16 ohms
Dimensions
Approx. 280 x 125 x 315 mm (w/h/d)
(11 1/8 x 5 x 12 1/2 inches)
Mass: Approx. 6.5 kg (14 lb 6 oz)

Supplied accessories

AM loop aerial (1)
Remote RM-U95 (1)
Sony SUM-3 (NS) batteries (2)
FM lead aerial (1)
Flat cord (1)
Audio cords (4)
(50 cm, for connecting components)
Speaker cords (5)
Feet for centre speaker (4)

General

Power requirements: 220 – 230 V AC, 50/60 Hz
Power consumption: 200 W (system)

Design and specifications are subject to change without notice.

Glossary

In this section, you can get brief information about the following:
• RDS Receiving
• Recording Functions
• Sound Quality Adjustment
It will help you understand your stereo system thoroughly.

RDS Receiving

Radio Data System (RDS)

With the RDS broadcasting service, you can get additional information with regular radio programming. For example, you can have the tuner automatically switch to a programme type of your choice when one starts in your broadcast area. This service is called "Enhanced Other Networks (EON)". See the list below for the different types of RDS services now available. (The letters in parentheses show the RDS code names for the service.)
RDS works only on the FM band*.

Note

RDS may not operate correctly if the tuned station is not transmitting properly or if broadcast is weak.

* Not all FM stations provide RDS service, nor do all RDS stations provide the same services. If in doubt, check with your local radio stations for details on RDS services in your area.

Program Service Name (PS)

You can locate a station by its commonly known name.
You do not have to know its assigned frequency because this service identifies each station by its name (for example, WDR instead of 103.8 MHz).

continue to next page →

→ continued

Traffic-Announcement Identification (TA)
You can quickly tune in the station currently broadcasting the traffic report.
You can use the tuner to automatically search for stations currently broadcasting traffic information.
This service indicates that a traffic announcement is being broadcast in your area, even if the station you are listening to is not broadcasting the traffic programme.

Traffic-Program Identification (TP)
You can use the tuner to automatically search for stations broadcasting traffic programmes.
The tuner identifies programmes carrying traffic announcements.
You can find out the latest traffic conditions in your area before leaving home.

The Recording Functions

About Dolby NR*
When you listen to soft music, you can reduce the high-frequency tape hiss noise by using Dolby noise reduction system B or C. Type C has greater noise reduction capability.
However, record your tapes in Dolby B if you intend to play back your tapes on a unit equipped with only type B (e.g., a headphone stereo).

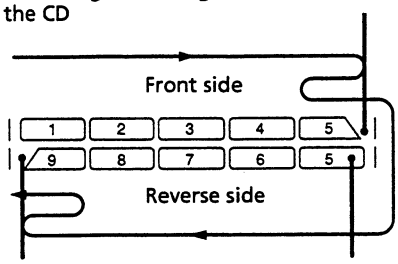
About the Dolby HX PRO system*
This unit is provided with the Dolby HX PRO system. The Dolby HX PRO system provides linearity in high-range frequency response during recording. Tapes recorded with this system retain the same high quality even when played back on other tape decks.
With the Dolby HX PRO system, the effective bias amount added to the bias current is controlled in millisecond units to greatly reduce distortion, improving high-intensity recording with minimal distortion and noise.

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.
"DOLBY", the double-D symbol ◻◻ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

About Fade Synchro
This feature slowly fades out a recording so that a track is not abruptly cut off at the end of the tape.

If the tape reaches the end of its front side while recording the middle of a track, the unit re-records it automatically after rewinding the tape to the beginning of the track. This time, the track is recorded with a fadeout at the end of the tape.
(Recording ends at this point if it is a single-sided recording.)

Recording in the original track order of the CD

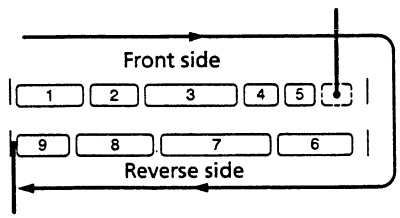


The track at the end of the reverse side is also faded out if it does not fit in the tape length.

Recording starts from the track that was faded out at the end of the front side.

When the total length of the track to be recorded is shorter than the length of one side of the tape by programming the track order, the unit automatically operates as follows:

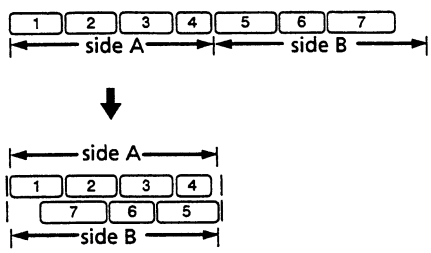
When the CD player is paused, the deck continues recording silence until it reaches the end of the front side; then it reverses the tape and starts recording.



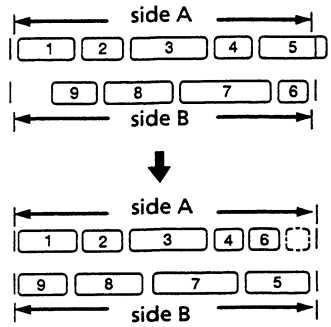
Once all of the selected tracks have been recorded, the deck records about four seconds of silence and then stops.

About Tape Select Edit
By using this feature, you can record an entire CD without any tracks being cut in the middle and leaving as little blank tape as possible.
The CD player divides the tracks between sides A and B without changing their order. Then it selects and displays the optimum tape length for recording that CD.

Tracks on the CD



About Time Edit
You can record a CD according to the tape length while changing the order of the tracks as little as possible.
However, tracks beyond track number 21 will not be selected. If you want to record those tracks beyond track number 21, you can specify them beforehand.



Since track 5 will not fit within the recording time for side A, the shorter track 6 is automatically selected in its place.

Sound Quality Adjustment

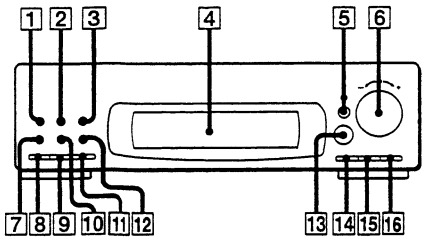
About DSP
"DSP" stands for "Digital Signal Processor". This converts the (analog) music signal into a digital signal to generate the various audio effects.
Because all signals are digitally processed, it is possible to create a high-quality sound field with little degradation of quality.
Four types of adjusted sounds (the Digital Sound Menu) are already stored in the AV centre amplifier. You can check the differences created by these different audio effects by calling up those that interest you and trying them. This system also uses the DSP to implement the functions of the Dolby Pro Logic Surround Decoder.

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

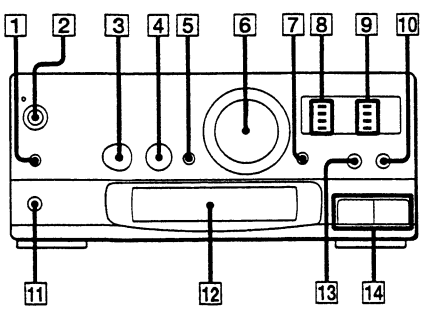
Front Panel

Tuner



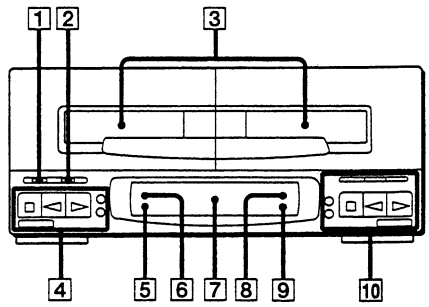
1 EON (Enhanced Other Networks) button (12)
2 PTY (Programme Type) button (13)
3 DISPLAY button (11, 12)
4 Display window (6, 10, 24)
5 ENTER/NEXT button* (6, 11, 24)
6 MULTI CONTROLLER* (6, 10, 11, 13, 24)
7 DAILY button* (24, 25)
8 TIMER SET button (24)
9 CLOCK SET button (6)
10 REC button* (25)
11 CHARACTER button (11)
12 SLEEP button* (24)
13 BAND button (10, 18, 28)
14 STEREO/MONO button (10)
15 TUNING MODE button (10)
16 MEMORY button (11)

AV centre amplifier



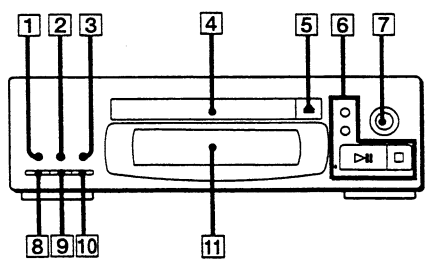
1 Remote sensor
2 SYSTEM POWER switch and ON/STANDBY indicator (7)
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
3 BASS control (20)
4 TREBLE control (20)
5 MUTING button* (20)
6 VOLUME control (5, 7, 20)
7 SOURCE DIRECT button* (20)
8 PRO LOGIC MODE indicators (23)
9 DSP MENU indicators (21)
10 DSP button (21)
11 HEADPHONES jack (20, 26)
12 Display window (21)
13 DOLBY PRO LOGIC button (23)
14 FUNCTION buttons (16, 19, 23, 26)
VIDEO (23, 26)
AUDIO (16, 19, 26)

Tape player



1 DOLBY NR selector (15)
2 DIRECTION MODE selector (14)
3 Cassette compartments (14)
4 Tape operating buttons (for deck A)
▷ (front side play) (14)
◁ (reverse side play) (14)
□ (stop) (14)
▶▶ (fast rightward and AMS**) (14)
◀◀ (fast leftward and AMS**) (14)
⏏ EJECT button (14)
5 RESET (counter reset) button (15)
6 COUNTER A/B button (15)
7 Display window
8 CD SYNCHRO button (15)
9 DUBBING MODE button (19)
10 Tape operating buttons (for deck B)
▷ (front side play) (14)
◁ (reverse side play) (14)
□ (stop) (14)
▶▶ (fast rightward and AMS**) (14)
◀◀ (fast leftward and AMS**) (14)
II PAUSE (14)
○ REC MUTE button (16)
● REC (recording) (16)
⏏ EJECT button (14)
**AMS: Automatic Music Sensor (14)

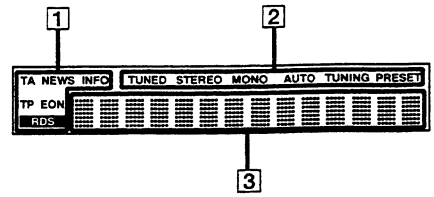
CD player



1 PLAY MODE button (8, 18)
2 REPEAT button (9)
3 TIME button (7)
4 Disc tray (7)
5 ⏏ OPEN/CLOSE button (open/close of the disc tray) (7, 15)
6 CD player operating buttons
◀◀/▶▶ (manual search) (8)
▷II (play/pause) (7, 16)
□ (stop) (7, 15)
7 ⏮ AMS ⏭ control (8, 17)
8 EDIT button (16, 17)
9 CHECK button (9, 17)
10 CLEAR button (9)
11 Display window (7, 16, 17)

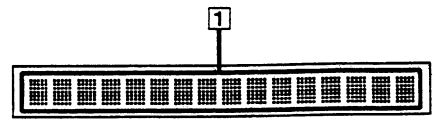
Display Window

Tuner



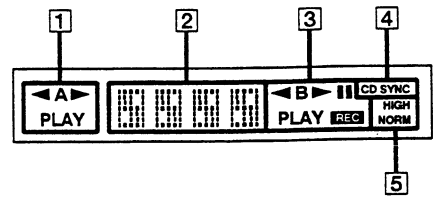
1 RDS service indications (12)
2 Tuner indication (10)
3 Frequency/station name/time/timer indication (6, 10, 11, 24)

AV centre amplifier



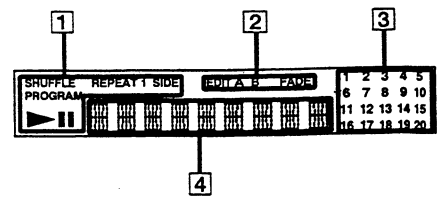
1 Audio emphasis indication (21)

Tape Player



1 Deck A status indication (15)
2 Tape counter indication
3 Deck B status indication (15)
4 CD SYNC (synchro) indication
5 Dubbing mode indication (19)

CD player



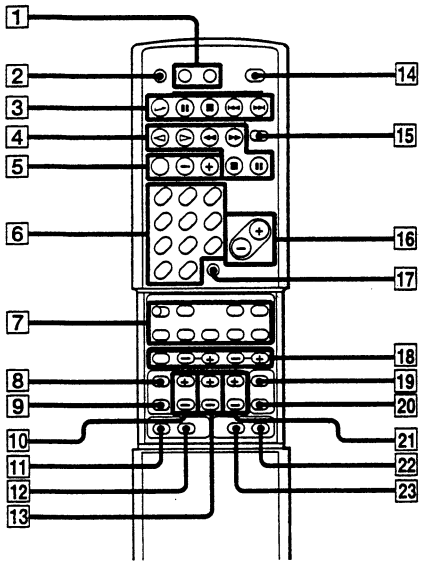
1 CD play mode indication (7)
2 CD edit mode indication (16)
3 Music calendar (7, 16)
4 Step/track number/playing time indication (7, 9, 16)

continue to next page →

→ continued

Remote

For further operation, refer to the pages in parentheses.



1 TAPE DECK A/B buttons (14)
2 SLEEP button (24)
3 CD operating buttons
▷ (play) (7)
II (pause) (7)
■ (stop) (7)
I◀◀ / ▶▶I (manual search) (8)
4 Tape operating buttons (14)
◁ (reverse side play)
▷ (front side play)
◀◀ (fast leftward and AMS**)
▶▶ (fast rightward and AMS**)
■ (stop)
II (pause)
**AMS: Automatic Music Sensor
5 Tuner operating buttons (10)
BAND button
+/– buttons
6 CD/Tuner numeric buttons (8, 11)
7 VCR operating buttons (23)
8 PRO LOGIC button (23)
9 TEST TONE button (23)
10 CENTER LEVEL +/– buttons (23, 28)
11 VIDEO FUNCTION button (26)
12 AUDIO FUNCTION button (19, 26)
13 REAR LEVEL +/– buttons (23, 28)
14 SYSTEM POWER switch (7)
15 CD/MD switch (8)
16 VOLUME +/– buttons (7, 20)
17 MUTING button (20)
18 TV operating buttons (23)
19 DSP MENU button (21)
20 DIRECT button (20)
21 DELAY TIME +/– button (23)
22 TIME button (7)
23 REPEAT button (9)

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